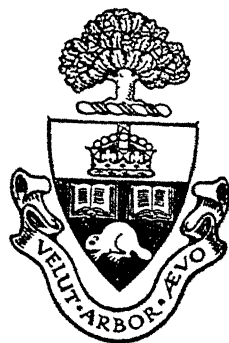


UNIVERSITY OF TORONTO



CALENDAR 1922-1923

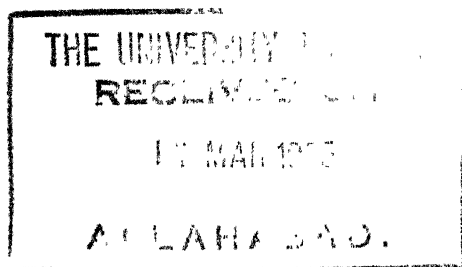


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ADMINISTRATIVE OFFICERS

1921-1922

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<i>Chairman</i> .. .	ALFRED TENNYSON DELURY, M.A.
<i>Secretary</i> .. .	WILLIAM JAMES DUNLOP, B.A.

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President SIR ROBERT ALEXANDER FALCONER, K.C.M.G.
Director JAMES ALFRED DALE, M.A.
Secretary

DEPARTMENT OF PUBLIC HEALTH NURSING

President SIR ROBERT ALEXANDER FALCONER, K.C.M.G.
Director MISS EDITH KATHLEEN RUSSELL, B.A.
Secretary

NOTE—Communications relating to standing in all Faculties and Departments and to curricula, instruction and examinations in Law, Dentistry, Pharmacy, Agriculture, Gymnastics and Drill, and Veterinary Science are to be addressed to the Registrar of the University; correspondence regarding curricula, instruction and examinations in a particular Faculty is to be sent to the Secretary of that Faculty; correspondence regarding registration, curricula, instruction and examinations in Graduate Courses is to be sent to the Secretary of the School of Graduate Studies; enquiries with reference to College instruction and residence are to be addressed to the Registrar of the College concerned.

Applications for admission to the Faculties of Arts, Medicine, Applied Science and Engineering, and Forestry, are to be sent to the Registrar of the University; applications for admission to the Faculties of Education and Music are to be sent to the Secretary of the Faculty concerned.

1922

CALENDAR

1922

JANUARY		FEBRUARY		MARCH		APRIL	
Sun.	1 8 15 22 29	Sun.	5 12 19 26	Sun.	5 12 19 26	Sun.	2 9 16 23 30
Mon.	2 9 16 23 30	Mon.	6 13 20 27	Mon.	6 13 20 27	Mon.	3 10 17 24 ..
Tues.	3 10 17 24 31	Tues.	7 14 21 28	Tues.	7 14 21 28	Tues.	4 11 18 25 ..
Wed.	4 11 18 25 ..	Wed.	1 8 15 22 ..	Wed.	1 8 15 22 29	Wed.	5 12 19 26 ..
Thur.	5 12 19 26 ..	Thur.	2 9 16 23 ..	Thur.	2 9 16 23 30	Thur.	6 13 20 27 ..
Fri.	6 13 20 27 ..	Fri.	3 10 17 24 ..	Fri.	3 10 17 24 31	Fri.	7 14 21 28 ..
Sat.	7 14 21 28 ..	Sat.	4 11 18 25 ..	Sat.	4 11 18 25 ..	Sat.	1 8 15 22 29 ..
MAY		JUNE		JULY		AUGUST	
Sun.	7 14 21 28	Sun.	4 11 18 25	Sun.	2 9 16 23 30	Sun.	6 13 20 27
Mon.	1 8 15 22 29	Mon.	5 12 19 26	Mon.	3 10 17 24 31	Mon.	7 14 21 28
Tues.	2 9 16 23 30	Tues.	6 13 20 27	Tues.	4 11 18 25 ..	Tues.	1 8 15 22 29
Wed.	3 10 17 24 31	Wed.	7 14 21 28	Wed.	5 12 19 26 ..	Wed.	2 9 16 23 30
Thur.	4 11 18 25 ..	Thur.	1 8 15 22 29	Thur.	6 13 20 27 ..	Thur.	3 10 17 24 31
Fri.	5 12 19 26 ..	Fri.	2 9 16 23 30	Fri.	7 14 21 28 ..	Fri.	4 11 18 25 ..
Sat.	6 13 20 27 ..	Sat.	3 10 17 24 ..	Sat.	1 8 15 22 29	Sat.	5 12 19 26 ..
SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
Sun.	3 10 17 24	Sun.	1 8 15 22 29	Sun.	5 12 19 26	Sun.	3 10 17 24 31
Mon.	4 11 18 25	Mon.	2 9 16 23 30	Mon.	6 13 20 27	Mon.	4 11 18 25 ..
Tues.	5 12 19 26	Tues.	3 10 17 24 31	Tues.	7 14 21 28	Tues.	5 12 19 26 ..
Wed.	6 13 20 27	Wed.	4 11 18 25	Wed.	1 8 15 22 29	Wed.	6 13 20 27 ..
Thur.	7 14 21 28	Thur.	5 12 19 26	Thur.	2 9 16 23 30	Thur.	7 14 21 28 ..
Fri.	1 8 15 22 29	Fri.	6 13 20 27	Fri.	3 10 17 24 ..	Fri.	1 8 15 22 29 ..
Sat.	2 9 16 23 30	Sat.	7 14 21 28	Sat.	4 11 18 25 ..	Sat.	2 9 16 23 30 ..

1923

CALENDAR

1923

JANUARY		FEBRUARY		MARCH		APRIL	
Sun.	7 14 21 28	Sun.	4 11 18 25	Sun.	4 11 18 25	Sun.	1 8 15 22 29
Mon.	1 8 15 22 29	Mon.	5 12 19 26	Mon.	5 12 19 26	Mon.	2 9 16 23 30
Tues.	2 9 16 23 30	Tues.	6 13 20 27	Tues.	6 13 20 27	Tues.	3 10 17 24 ..
Wed.	3 10 17 24 31	Wed.	7 14 21 28	Wed.	7 14 21 28	Wed.	4 11 18 25 ..
Thur.	4 11 18 25 ..	Thur.	1 8 15 22 ..	Thur.	1 8 15 22 29	Thur.	5 12 19 26 ..
Fri.	5 12 19 26 ..	Fri.	2 9 16 23 ..	Fri.	2 9 16 23 30	Fri.	6 13 20 27 ..
Sat.	6 13 20 27 ..	Sat.	3 10 17 24 ..	Sat.	3 10 17 24 31	Sat.	7 14 21 28 ..
MAY		JUNE		JULY		AUGUST	
Sun.	6 13 20 27	Sun.	3 10 17 24 ..	Sun.	1 8 15 22 29	Sun.	5 12 19 26
Mon.	7 14 21 28	Mon.	4 11 18 25 ..	Mon.	2 9 16 23 30	Mon.	6 13 20 27
Tues.	1 8 15 22 29	Tues.	5 12 19 26 ..	Tues.	3 10 17 24 31	Tues.	7 14 21 28
Wed.	2 9 16 23 30	Wed.	6 13 20 27 ..	Wed.	4 11 18 25 ..	Wed.	1 8 15 22 29
Thur.	3 10 17 24 31	Thur.	7 14 21 28 ..	Thur.	5 12 19 26 ..	Thur.	2 9 16 23 30
Fri.	4 11 18 25 ..	Fri.	1 8 15 22 29 ..	Fri.	6 13 20 27 ..	Fri.	3 10 17 24 31
Sat.	5 12 19 26 ..	Sat.	2 9 16 23 30 ..	Sat.	7 14 21 28 ..	Sat.	4 11 18 25 ..
SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
Sun.	2 9 16 23 30	Sun.	7 14 21 28	Sun.	4 11 18 25	Sun.	2 9 16 23 30
Mon.	3 10 17 24 ..	Mon.	1 8 15 22 29	Mon.	5 12 19 26	Mon.	3 10 17 24 31
Tues.	4 11 18 25 ..	Tues.	2 9 16 23 30	Tues.	6 13 20 27	Tues.	4 11 18 25 ..
Wed.	5 12 19 26 ..	Wed.	3 10 17 24 31	Wed.	7 14 21 28	Wed.	5 12 19 26 ..
Thur.	6 13 20 27 ..	Thur.	4 11 18 25 ..	Thur.	1 8 15 22 29	Thur.	6 13 20 27 ..
Fri.	7 14 21 28 ..	Fri.	5 12 19 26 ..	Fri.	2 9 16 23 30	Fri.	7 14 21 28 ..
Sat.	1 8 15 22 29 ..	Sat.	6 13 20 27 ..	Sat.	3 10 17 24 ..	Sat.	1 8 15 22 29 ..

CALENDAR 1922-23

- 1922—July 1 Saturday....Dominion Day, University Buildings closed.
- July 6 Thursday...Meeting of the Finance and Executive Committee of Trinity College.
- Aug. 1 Tuesday ...Last day for receiving applications for the September Examinations in the Faculty of Arts.
- Aug. 15 Tuesday ..Last day for receiving applications for the September examinations in Medicine.
- Aug. 19 Saturday...Students Third Year, Dept. 1, Faculty of Applied Science and Engineering report at Gull Lake Camp.
- Sept. 1 Friday Last day for receiving applications for the Supplemental Matriculation Examination.
- Sept. 1 Friday Last day for receiving applications for the Supplemental Examinations in the Faculties of Medicine and Applied Science and Engineering.
- Sept. 4 Monday Labour Day. University Building closed.
- Sept. 5 Tuesday ...Supplemental Junior Matriculation Examination begins, conducted by the University Matriculation Board.
- Sept. 5 Tuesday ...Supplemental Examinations in the Faculty of Medicine begin.
- Sept. 6 Wednesday.Supplemental Examinations in the Faculty of Arts begin.
- Sept. 7 Thursday...Meeting of the Finance and Executive Committee of Trinity College.
- Sept. 15 Friday Meeting of the Council of the Faculty of Medicine.
- Sept. 22 Friday Meeting of University College Council.
- Sept. 23 Saturday...Meeting of the Faculty of Arts of Victoria College.
- Sept. 25 Monday Meeting of the Council of the Faculty of Applied Science and Engineering.
- Sept. 25 Monday Registration for first and second years in the Faculty of Applied Science and Engineering.
- Sept. 26 Tuesday ...Enrolment in classes by the various Professors begins at 9.00 a.m.
- Sept. 26 Tuesday ...Academic Year begins at 9.00 a.m.

- Sept. 26 Tuesday ...Registration for Third and Fourth Years in the Faculty of Applied Science and Engineering. Last day for handing in Construction notes.
- Sept. 26 Tuesday ...The opening address by the President to the students of all the Faculties at 3 p.m., in Convocation Hall.
- Sept. 26 Tuesday ...Last day for the completion of registration in person for the Session 1922-1923.
- Sept. 26 Tuesday ...Enrolment in classes for the Session 1922-1923 to be completed at 5 p.m.
- Sept 27 Wednesday.Lectures and Laboratory work begin in the Faculty of Applied Science and Engineering.
- Sept 27 Wednesday.Lectures begin at 9.00 a.m.
- Sept 27 Wednesday.Meeting of the Faculty of Arts of Victoria College.
- Sept. 29 Friday ...St. Michael's Day.
- Sept. 29 Friday ...Meeting of the Senate of Victoria College.
- Oct. 5 Thursday ..Meeting of the Finance and Executive Committee of Trinity College.
- Oct. 6 Friday Meeting of University College Council.
- Oct. 6 Friday Meeting of the Council of the Faculty of Medicine.
- Oct. 6 Friday Meeting of the Council of the Faculty of Applied Science and Engineering.
- Oct. 7 Saturday ..Stated meeting of the Caput to deal with requests as to social functions until November 15th.
- Oct. 9 Monday Meeting of the Council of the Faculty of Arts.
- Oct. 11 Wednesday.Interfaculty Track Meet, University Buildings closed after 1 p.m.
- Oct. 13 Friday Meeting of Senate.
- Oct. 13 Friday Charter Day, Victoria College.
- Nov. 1 Wednesday.Meeting of the Faculty of Arts of Victoria College.
- Nov. 3 Friday Meeting of University College Council.
- Nov. 3 Friday Meeting of the Senate of Victoria College.
- Nov. 3 Friday Meeting of the Council of the Faculty of Applied Science and Engineering.
- Nov. 6 Monday Meeting of the Council of the Faculty of Arts.
- Nov. 9 Thursday...Meeting of the Finance and Executive Committee of Trinity College.
- Nov. 10 Friday Meeting of Senate.
- Nov. 15 Wednesday.Annual General Business Meeting of the Convocation of Trinity College.

- Nov. 16 Thursday.....Annual General Meeting of the Corporation of Trinity College.
- Nov. 29 Wednesday.Meeting of the Faculty of Arts of Victoria College.
- Dec. 1 Friday Last day for receiving applications for the January Examinations in Arts.
- Dec. 1 Friday Meeting of University College Council.
- Dec. 1 Friday . Meeting of the Senate of Victoria College.
- Dec. 1 Friday Meeting of the Council of the Faculty of Medicine.
- Dec. 1 Friday Meeting of the Council of the Faculty of Applied Science and Engineering.
- Dec. 4 Monday ... Meeting of the Council of the Faculty of Arts.
- Dec. 7 Thursday ..Meeting of the Finance and Executive Committee of Trinity College.
- Dec. 8 Friday Meeting of the Senate.
- Dec. 18-22 Monday-Friday—
Term Examinations in the Faculty of Arts.
- Dec. 22 Friday Last day of Lectures. Term ends at 12 noon.
- Dec. 25 Monday . University Buildings closed.
- Dec. 29 Friday ... Meeting of the Faculty of Arts of Victoria College.
- 1923—Jan. 1 Monday ... University Buildings closed.
- Jan. 2 Tuesday ..Supplemental Examinations in Arts begin.
- Jan. 4 Thursday ..Meeting of the Finance and Executive Committee of Trinity College.
- Jan. 5 Friday ... Meeting of University College Council.
- Jan. 8 Monday Meeting of the Council of the Faculty of Arts.
- Jan. 9 Tuesday Easter Term begins. Lectures begin at 9 a.m.
- Jan. 10 Wednesday Assembly of the Students of all Faculties in Convocation Hall at 12.10 p.m.
- Jan. 12 Friday Meeting of Senate.
- Jan. 15 Monday Inauguration Day, Trinity College.
- Jan. 31 Wednesday.Meeting of the Faculty of Arts of Victoria College.
- Feb. 2 Friday Meeting of University College Council.
- Feb. 2 Friday Meeting of the Senate of Victoria College.
- Feb. 2 Friday Meeting of the Council of the Faculty of Applied Science and Engineering.
- Feb. 2 Friday.....Meeting of the Council of the Faculty of Medicine.

Feb. 5 Monday Meeting of the Council of the Faculty of Arts.

Feb. 8 Thursday ..Meeting of the Finance and Executive Committee of Trinity College.

Feb. 9 Friday Meeting of the Senate.

Feb. 14 Wednesday.Ash Wednesday.

Feb. 28 Wednesday.Meeting of the Faculty of Arts of Victoria College.

Mar. 2 Friday Meeting of University College Council.

Mar. 2 Friday Meeting of the Senate of Victoria College.

Mar. 2 Friday Meeting of the Council of the Faculty of Applied Science and Engineering.

Mar. 5 Monday Meeting of the Council of the Faculty of Arts.

Mar. 8 Thursday ..Meeting of the Finance and Executive Committee of Trinity College.

Mar. 9 Friday Meeting of Senate.

Mar. 15 Thursday...Last day for receiving applications for Annual Examinations in the Faculties of Arts and Medicine and in the Department of Law.

Mar. 30 Friday Good Friday. University Buildings closed.

Mar. 31 Saturday...Last day for submitting LL.B. theses.

Apr. 4 Wednesday.Meeting of the Faculty of Arts of Victoria College.

Apr. 5 Thursday ..Meeting of the Finance and Executive Committee of Trinity College.

Apr. 5 Thursday ..Annual Examinations begin in the Faculty of Applied Science and Engineering

Apr. 6 Friday Meeting of University College Council.

Apr. 6 Friday Meeting of the Senate of Victoria College.

Apr. 6 Friday Meeting of the Council of the Faculty of Medicine.

Apr. 6 Friday Meeting of the Council of the Faculty of Applied Science and Engineering.

Apr. 9 Monday Meeting of the Council of the Faculty of Arts.

Apr. 20 Friday Lectures in the Faculty of Arts end.

Apr. 23-27 Monday-Friday. Term Examinations.

May 1 Tuesday Annual Examinations begin in the Faculties Arts and Music and in the Departments of Law, Pharmacy and Agriculture.

May 1 Tuesday Last day for receiving applications for the Alexander Mackenzie Fellowships in Political Science.

May 1 Tuesday Last day for receiving applications for
 the June Examinations in the Faculty
 of Arts.
 May 1 Tuesday .. Last day for receiving applications
 from candidates for Junior Matricula-
 tion Scholarships.
 May 2 Wednesday.Meeting of the Faculty of Arts of Vic-
 toria College.
 May 4 Friday . .Meeting of University College Council.
 May 4 Friday .. .Meeting of the Council of the Faculty
 of Applied Science and Engineering
 May 4 Friday .. .Meeting of the Senate of Victoria Col-
 lege.
 May 7 Monday .. Meeting of the Council of the Faculty
 of Arts.
 May 7 Monday Annual Examinations in the Faculty of
 Medicine begin.
 May 10 Thursday .Meeting of the Finance and Executive
 Committee of Trinity College.
 May 11 Friday Meeting of Senate.
 May 24 Thursday....University Buildings closed.
 May 31 Thursday ..Session ends in the Faculty of Medicine
 June 1 Friday ..Last day for receiving applications for
 Fellowships.
 June 4 Monday . .Meeting of the Council of the Faculty
 of Arts.
 June 6 Wednesday.Meeting of Senate.
 June 6 Wednesday.Meeting of the Faculty of Arts of Vic-
 toria College.
 June 8 Thursday ..Meeting of the Finance and Executive
 Committee of Trinity College.
 June 8 Friday University Commencement.

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1921-1922

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Professor of English, (C.)
 91 Walmer Road.

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Professor of Obstetrics and Gynaecology,
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 Trinity College.

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Associate Professor of Clinical Medicine,
 184 Bloor Street East.
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 410 Dovercourt Road.
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 70 Farnham Avenue.

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 537 Markham Street.
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Associate Professor of Physiological Chemistry,
 157 Bloor Street West.
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Associate Professor of Architecture,
 B3, 97 Avenue Road.
- M GEORGE ARTHUR BINGHAM, M.B., M.D., C.M.,
Associate Professor of Clinical Surgery and Clinical Anatomy,
 68 Isabella Street.
- S MAITLAND CREASE BOSWELL, B.A.Sc., M.A., HARVARD, PH.D.,
Associate Professor of Organic Chemistry,
 Mining Building, University of Toronto.
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Associate Professor of Medicine in Charge of Pediatrics,
 423 Avenue Road.
- A WALTER THEODORE BROWN, M.A., PH.D., HARVARD,
Associate Professor of Ethics, (V.)
 398 Eglinton Avenue West.
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Associate Professor of Physics, (U.)
 8 Willcocks Street.
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Associate Professor of Clinical Medicine,
 26 Gerrard Street East.
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Associate Professor of Ancient History, (C.)
 Ainger Apartments, Bloor Street East.
- S JAMES ROY COCKBURN, M.C., B.A.Sc.,
Associate Professor of Descriptive Geometry,
 100 Walmer Road.
- A VICTOR DE BEAUMONT, A.M., COLUMBIA,
Associate Professor of the French Language and Literature, (V.)
 Cotswold Court, 164 Cumberland Street.
- A SAINT-ELME DE CHAMP, B ÈS L., LYONS, O.I.P.,
Associate Professor of French, (C.)
 22 Chestnut Park.
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Associate Professor of German, (C.)
 22 Kendal Avenue.

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Associate Professor of Chemistry, (U.)
 147 Delaware Avenue.
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Associate Professor of History, (U.)
 70 Pricefield Road.
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 LL.D., QUEEN'S, TOR.,
Associate Professor of Medicine and Clinical Medicine,
 20 Wellesley Street.
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Associate Professor of Clinical Medicine,
 86 College Street.
- M PERRY GLADSTONE GOLDSMITH, C.B.E., M.D., C.M.,
Associate Professor of Laryngology,
 84 Carlton Street.
- M STEPHEN MOFFAT HAY, M.D.,
Associate Professor of Clinical Surgery,
 2 Spadina Road.
- M WILLIAM BELFRY HENDRY, D.S.O., B.A., M.B.,
Associate Professor of Obstetrics and Gynaecology,
 112 College Street.
- A ARCHIBALD GOWANLOCK HUNTSMAN, B.A., M.B.,
Associate Professor of Marine Biology, (U.)
 217 Indian Road.
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Associate Professor of Rural Economics, (U.)
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Associate Professor of Political Economy, (U.)
 74A St. Albans Street.
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Associate Professor of French, (C.)
 70 St. Albans Street.
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Associate Professor of English, (C.)
 576 Huron Street.
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Associate Professor of Highways,
 146 Balmoral Avenue.
- H MISS ANNIE LEWISA LAIRD, M.S., DREXEL,
Associate Professor of Household Science,
 157 Bloor Street West.

- S THOMAS RICHARDSON LOUDON, B.A.Sc.,
Associate Professor of Ferro-Metallurgy,
 189 Sheldrake Boulevard.
- S ARTHUR WELLESLEY MCCONNELL, B.A.Sc.,
Associate Professor of Architecture,
 36 Prince Arthur Avenue.
- A REV. EDMUND JOSEPH MCCORKELL, B.A., M.A., CATH. UNIV.
 OF AMERICA,
Associate Professor of English (M.)
 St. Michael's College.
- M KENNEDY CRAWFORD MCILWRAITH, M.B.,
Associate Professor of Obstetrics,
 30 Prince Arthur Avenue.
- M PATRICK WALTER HUGHES MCKEOWN, C.B.E., B.A., M.B.,
Associate Professor of Clinical Surgery,
 Corner Wellesley Street and Wellesley Place.
- M FREDERICK WILLIAM MARLOW, M.D., C.M., F.R.C.S.,
Associate Professor of Gynaecology,
 417 Bloor Street West.
- F WILLIS NORMAN MILLAR, B.Sc., PENN., M.F., YALE,
Associate Professor of Forestry,
 R. R. No. 2, Oakville.
- A MARCEL MORAUD, L. ÈS L., PARIS, AGRÉGÉ DE L'UNIVERSITÉ,
Associate Professor of French, (C.)
 321 Roehampton Avenue.
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Associate Professor of Latin, (M.)
 St. Michael's College.
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Associate Professor of French, (M.)
 St. Michael's College.
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Associate Professor of French, (M.)
 St. Joseph's College, St. Albans Street.
- A REV. MICHAEL JOSEPH OLIVER, B.A., PH.M., CATH. UNIV. OF
 AMERICA,
Associate Professor of German, (M.)
 St. Michael's College.
- A ARTHUR LEONARD PARSONS, B.A., NEW YORK,
Associate Professor of Mineralogy, (U.)
 72 Isabella Street.
- A WILLIAM HUNTER PIERSOL, B.A., M.B.,
Associate Professor of Histology and Embryology,
 (U.)
 35 Dunvegan Road.

- A WILLIAM ARTHUR POTTER, M.A., B.D.,
Associate Professor of Oriental Languages and Literature, (V.)
 244 Sheldrake Boulevard.
- M GILBERT ROYCE, B.A., M.B.,
Associate Professor of Oto-Laryngology,
 100 College Street.
- A JOHN SATTERLY, M.A., CANTAB., D.SC., LOND.,
Associate Professor of Physics, (U.)
 269 Davenport Road.
- A GEORGE MALCOLM SMITH, M.C., B.A., M.A., OXON.,
Associate Professor of History, (U.)
 North House, Victoria College.
- A GEORGE OSWALD SMITH, M.A., OXON.,
Associate Professor of Latin, (C.)
 25 Rathnally Avenue.
- A HORACE BRADBURY SPEAKMAN, M.SC., MANCHESTER,
Associate Professor of Zymology, (U.)
 61 Walmsley Boulevard.
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Associate Professor of Clinical Surgery,
 112 College Street.
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Associate Professor of Clinical Medicine,
 124 Bloor Street West.
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Associate Professor of Phanerogamic Botany, (U.)
 586 Spadina Avenue.
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Associate Professor of Surveying,
 13 Woodlawn Avenue East.
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Associate Professor of Biology, (U.)
 67 Alcina Avenue.
- A HARDOLPH WASTENEYS, PH.D., COLUMBIA,
Associate Professor of Biochemistry, (U.)
 20 Howland Avenue.
- F JAMES HERBERT WHITE, M.A., B.Sc.F., PH.D.
Associate Professor of Forestry,
 75 Browning Avenue.
- A RALPH HODDER WILLIAMS, M.C., M.A., OXON., A.M., COLUMBIA,
Associate Professor of History, (U.)
 9 Rowanwood Avenue.
- S CLARENCE RICHARD YOUNG, B.A.Sc., C.E.,
Associate Professor of Applied Mechanics,
 98 Hilton Avenue

Assistant Professors.

- A EDWARD ALEXANDER BOTT, B.A.,
Assistant Professor of Psychology, (U.)
 57 Sussex Avenue.
- A JAMES WINFRED BRIDGES, B.A., MCGILL, A.M., PH.D., HARVARD,
Assistant Professor of Psychology, (U.)
 Athelma Apartments, 78 Grosvenor Street.
- A ALEXANDER GRANT BROWN, B.A., M.A., OXON.,
Assistant Professor of Ancient History, (C.)
 596 Huron Street.
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Assistant Professor of Electro-Chemistry, (U.)
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 96 Oakwood Avenue.
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Assistant Professor of Lymnobiology, (U.)
 215 Davenport Road.
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Assistant Professor of Pathological Chemistry,
 182 Soudan Avenue.
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Assistant Professor of Methods in Elementary Subjects,
 158 Delaware Avenue.
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Assistant Professor of Methods in Science,
 38 St. Clair Avenue East.
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Assistant Professor of Vertebrate Embryology, (U.)
 Hart House, University of Toronto.
- E JOHN THOMAS CRAWFORD, B.A.,
Assistant Professor of Methods in Mathematics,
 168 Walmer Road.
- S SAMUEL RUTHERFORD CRERAR, B.A.Sc.,
Assistant Professor of Surveying,
 122 Grenadier Road.
- A ERNEST ABELL DALE, M.A., OXON.,
Assistant Professor of Latin, (C.)
 576 Huron Street.
- M ROBERT DAVIES DEFRIES, M.D., D.P.H.,
Assistant Professor of Hygiene and Associate Director of the Connaught Antitoxin Laboratory,
 135 Collier Street.

- A DAVID DUFF, M.A., B.D., EDIN.,
Assistant Professor of Latin, (C.)
 85 Woodlawn Avenue West.
- S FREDERICK CHARLES DYER, B.A.Sc.,
Assistant Professor of Mining Engineering,
 233 Ashworth Avenue.
- E WILLIAM CHALMERS FERGUSON, B.A.,
Assistant Professor of Methods in French and German,
 42 Wychwood Park.
- M DONALD THOMAS FRASER, M.C., B.A., M.B., D.P.H.,
Assistant Professor of Hygiene and Preventive Medicine,
 York Mills.
- A WILLIAM STANLEY FUNNELL, M.A.,
Assistant Professor of Chemistry, (U.)
 348 Davenport Road.
- A LACHLAN GILCHRIST, M.A., PH.D., CHICAGO,
Assistant Professor of Physics, (U.)
 North House, University of Toronto.
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Assistant Professor of Italian and Spanish, (U.)
 555 Palmerston Avenue.
- A THURE HEDMAN, PH.B., CHICAGO,
Assistant Professor of German, (C.)
 12 Lytton Boulevard.
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Assistant Professor of Methods in English,
 780 Keele Street.
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 LITT.D., DUBLIN,
Assistant Professor of History, (U.)
 110 Quebec Avenue
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Assistant Professor of Mining Engineering,
 60 Ashburnham Road.
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Assistant Professor of French, (C.)
 111 Sherwood Avenue.
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Assistant Professor of Geology, (U.)
 22 Havelock Street.
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Assistant Professor of Education,
 172 Walmer Road.

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Assistant Professor of Physics, (U.)
 1490 Yonge Street.
- M HUGH BETHUNE MAITLAND, M.B.,
Assistant Professor of Pathology and Bacteriology,
 54 Simpson Avenue.
- E MISS LAURA LAVINIA OCKLEY, B.A.,
Assistant Professor of Household Science,
 50 Rosemount Avenue.
- A JAMES MONTROSE DUNCAN OLMSTED, M.A., OXON., PH.D.,
 HARVARD,
Assistant Professor of Physiology, (U.)
 55a East House, University of Toronto.
- S JOHN HAMILTON PARKIN, B.A.SC., M.E.,
Assistant Professor of Design,
 10 Columbine Avenue.
- A IRVINE RUDSDALE POUNDER, M.A.,
Assistant Professor of Mathematics, (U.)
 19 Glen Gordon Road.
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Assistant Professor of Philosophy, (U.)
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Assistant Professor of Chemistry, (U.)
 29 Rosemount Avenue.
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Assistant Professor of Pharmacology,
 102 St. Leonard's Avenue.
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Assistant Professor of Research in Botany,
 10 Rathnally Avenue.
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Assistant Professor of Drawing,
 40 Wellesley Street.
- A JOHN LIGHTON SYNGE, B.A., DUBLIN,
Assistant Professor of Mathematics, (U.)
 Apt. 8, 183 Huron Street
- A JOSEPH ELLIS THOMSON, B.A.SC.,
Assistant Professor of Mineralogy, (U.)
 57 Queen's Park.
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Assistant Professor of Anatomy,
 20 Hawthorne Avenue.

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 PH.D., CHICAGO,
Assistant Professor of Greek, (C.)
 138 St. Clements Avenue.
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Assistant Professor of Electrical Engineering,
 80 Pine Crest Road.

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Lecturer in French, (C.)
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Lecturer in Mammalian Anatomy, (U.)
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Lecturer in Surveying,
 330 St. George Street.
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Lecturer in Philosophy, (U.)
 Hart House, University of Toronto.
- S STEWART GORDON BENNETT, M.C., B.A.Sc.,
Lecturer in Commercial Engineering,
 16 Howland Avenue.
- M GEORGE MAITLAND BIGGS, M.B.,
Associate in Oto-Laryngology,
 341 Bloor Street West.

- M EDWARD ALEXANDER BOTT, B.A.,
Special Lecturer in Psychiatry,
 57 Sussex Avenue.
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Lecturer in Music,
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Lecturer in the Department of Social Service,
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Lecturer in Social Service,
 2 Highview Crescent
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 115 Bedford Road.
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Lecturer in Ethics, (T.)
 Trinity College.
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Associate in Psychiatry,
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 P *Lecturer in Social Service and Special Lecturer in*
Public Health Nursing.
 252 Roxborough Street East.
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Special Lecturer in Public Health Nursing,
 158 Delaware Avenue.

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Lecturer in Comparative Anatomy and Neurology,
 (U.)
 40 Leopold Street
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Lecturer in English Expression,
 26 Page Street.
- A VICTOR DE BEAUMONT, A.M., COLUMBIA,
Special Lecturer in French, (T.)
 Cotswold Court, 164 Cumberland Street.
- A GEORGE HENRY DUFF, M.A.,
Lecturer in Botany, (U.)
 South House, University of Toronto.
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Lecturer in Social Service,
 34 North Street.
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Lecturer in Systematic Vertebrate Zoology, (U.)
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 539 Church Street.
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Lecturer in French, (C.)
 545 Lansdowne Avenue.
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Lecturer in Accounting, (U.)
 52 Tranby Avenue.
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Lecturer in Commercial and International Law, (U.)
 100 Bedford Road.
- Ms HERBERT AUSTIN FRICKER, M.A., LEEDS, MUS. BAC.,
Lecturer in Choral and Orchestral Music,
 12 Braemar Apartments, Wellesley Crescent.
- M WILLIAM EDWARD GALLIE, M.D., F.R.C.S.,
Associate in Surgery,
 143 College Street.
- S WALTER SCOTT GUEST, B.A.SC.,
Lecturer in Electrical Engineering,
 30 McMaster Avenue.
- Ms ALBERT HAM, MUS. DOC.,
Lecturer in Church Music,
 561 Jarvis Street.

- H MISS BLANCHE RONNE HARRIS, B.Sc., M.A.
Lecturer in Household Science,
 62 Avenue Road.
- M ALFRED PURVIS HART, M.B.,
Clinician in Medicine,
 48 De Lisle Avenue
- SS PERCY ROY HAYWARD, B.A., B.D., PH.D.,
Lecturer in Social Service,
 112 Simpson Avenue
- H MISS EVELYN MARION HICKMANS, M.Sc., BIRMINGHAM,
Lecturer in Household Science,
 192 Bloor Street West.
- E MISS HANNAH HILL, B.S., COLUMBIA,
Lecturer in Household Science,
 47 Avenue Road.
- A LLOYD CLIFFORD ARNOTT HODGINS, M.A., TOR., HARVARD,
Lecturer in English, (T.)
 Trinity College.
- SS MISS ANNIE FRANCES HODGKINS,
Lecturer in Social Service,
 21 Carlton Street
- A GEOFFREY ELWOOD HOLT, M.A., MUS. BAC.,
Lecturer in German, (C.)
 280 Bloor Street West.
- A SAMUEL HENRY HOOKE, M.A., OXON., B.D., LOND.,
Special Lecturer in History, (U.)
 20 Highview Crescent.
- A HAROLD ADAMS INNES, M.A., MCMASTER, PH.D., CHICAGO,
Lecturer in Political Economy, (U.)
 696 Markham Street.
- A WILLIAM ANDREW IRWIN, M.A., D.B., CHICAGO,
Lecturer in Oriental Languages, (C.)
 74 Ellsworth Avenue
- M SAMUEL JOHNSON, M.A., M.D., C.M.,
Lecturer in Anaesthesia,
 108 Avenue Road.
- M WILLIAM WARNER JONES, B.A., M.B., F.R.C.S.,
Associate in Clinical Surgery,
 41 Avenue Road.
- A HUBERT RICHMOND KEMP, M.A.,
Lecturer in Political Economy, (U.)
 135 Beatrice Street.
- M JAMES ALEXANDER KINNEAR, M.D., C.M.,
Associate in Obstetrics,
 267 Russell Hill Road

- P F. H. KIRKPATRICK,
Special Lecturer in Public Health Nursing,
358 Spadina Road.
- A ALEXANDER LACEY, M.A.,
Lecturer in French, (V.)
145 Hillingdon Avenue.
- S CLAUDE DELMONT LOCKE, B.S., M.A.,
Lecturer in Chemical Engineering and Applied Chemistry,
154 Grenadier Road.
- A JOHN WOOD MACARTHUR, A.B., OBERLIN, M.A., WABASH,
PH D., CHICAGO,
Lecturer in Experimental Biology and Genetics, (U.)
319 Roehampton Avenue.
- A VINCENT ARTHUR McDONOUGH, M.B.,
Lecturer in Psychology, (M.)
714 Dovercourt Road.
- SS ALEXANDER MACLAREN, B.S.A.,
Lecturer in the Department of Social Service,
Georgetown, Ontario.
- SS JOHN WALKER MACMILLAN, B.A., D.D.,
Lecturer in Social Service,
190 Dawlish Avenue.
- SS MISS MARY ELMA MCPHEDRAN,
Lecturer in the Department of Social Service,
116 Balmoral Avenue.
- S HENRY HARRISON MADILL, B.A SC.,
Lecturer in Architecture,
169 Lauder Avenue.
- M WILLIAM MAGNER, M.D., D.P.H.,
Lecturer in Pathology,
184 Dupont Street.
- A M. M. MARGARITA, B.A.,
Lecturer in English, (M.)
Loretto Abbey College.
- A WILLIAM HOWARD MARTIN, M.A.,
Lecturer in Chemistry, (U.)
113 Grenadier Road.
- S JOHN WALLER MELSON, B.A.Sc.,
Lecturer in Surveying,
69 Walmsley Boulevard.
- A MISS SUSAN GERTRUDE MORLEY, M.A.,
Lecturer in Classics, (T.)
87 Howland Avenue.

- A REV. HUGH CARLTON SYDDALL MORRIS,
Lecturer in Religious Knowledge, (T.),
49 Brunswick Avenue.
- MS FERDINAND ALBERT MOURÉ,
Lecturer in the History of Music,
88 Walmer Road.
- H MRS. FRANCES JANE NETHERCOTT, M.A.
Lecturer in Household Science.
18 Biggar Avenue.
- A ARTHUR ANGUS NORTON, B.A., CANTAB.,
Lecturer in French, (T.)
38 Metcalfe Street.
- A REV. JOHN ERNEST PAGEAU,
Lecturer in French, (M.)
St. Michael's College.
- A GORDON CUMMINGS PATTERSON, M.C., B.A.,
Lecturer in Italian and Spanish, (U.)
342 Berkeley Street.
- A S. M. PERPETUA, B.A.,
Lecturer in German, (M.)
St. Joseph's College.
- E SAMUEL WALTER PERRY, B.A.,
Lecturer in Art and Commercial Work,
406 Brunswick Avenue.
- A JOSEPH PIJOAN, LLITT., BARCELONA,
Special Lecturer in Italian and Spanish, (U.)
Strathgowan Crescent.
- M GEORGE DANA PORTER, M.B.,
Special Lecturer in Health Education,
162 Crescent Road.
- A EDWIN JOHN PRATT, PH.D.,
Lecturer in English, (V.) and Lecturer in Social Service,
889 Davenport Road.
- M GORDON EARLE RICHARDS, M.B.,
Associate in Radiology,
325 St. George Street.
- M THOMAS BEDFORD RICHARDSON, M.D., C.M.,
Associate in Clinical Surgery,
128 Bloor Street West.
- A HARTLEY GRANT ROBERTSON, B.A., PH.D., CHICAGO,
Lecturer in Classics, (V.)
409 Brunswick Avenue.

- A JOHN DANIEL ROBINS, B.A.,
Lecturer in German, (V.)
 187 Lauder Avenue.
- M WILLIAM LIPSETT ROBINSON, B.A., McMASTER, M.B.,
*Lecturer in Surgical Pathology and Curator of the
 Pathological Museum,*
 15 Glen Grove Avenue West.
- A REV. WILLIAM ROLLO, M.A., ABERDEEN,
Lecturer in Hebrew, (T.)
 Trinity College.
- A MISS MARY COYNE ROWELL, B.A.,
Lecturer in French, (V.)
 101 Madison Avenue.
- M EDWARD STANLEY RYERSON, M.D., C.M.,
Associate in Clinical Surgery,
 14 Delisle Avenue.
- E ALLEN NELSON SCARROW,
Lecturer in Manual Training,
 150 Delaware Avenue.
- A MISS LAILA CORDELIA SCOTT, M.A.,
Lecturer in German, (T.)
 St. Hilda's College.
- A NORRIS EDWARD SHEPPARD, M.A.,
Lecturer in Mechanics, (U.),
 862a Keele Street.
- M CHARLES BUCKINGHAM SHUTTLEWORTH, M.D., C.M., F.R.C.S.,
Associate in Surgery and Clinical Surgery,
 478 Huron Street.
- M GIDEON SILVERTHORN, M.B.,
Associate in Clinical Surgery,
 34 North Sherbourne Street.
- P FRANK NEIL STAPLEFORD, B.A.,
 SS *Lecturer in Social Service and
 Special Lecturer in Public Health Nursing,*
 543 Windermere Avenue.
- A M. M. ST. CLARE, B.A.,
Lecturer in Latin, (M.)
 Loretto Abbey College.
- A NORMAN BURKE TAYLOR, M.B.,
Lecturer in Physiology, (U.)
 184 Spadina Road.
- S ROSS TAYLOR, B.A.Sc.,
Lecturer in Hydraulics,
 121 Carlton Street.

- S JAMES EDWIN TOOMER, B.S., N. CAROLINA STATE COLLEGE OF
ENGINEERING,
Lecturer in Metallurgical Engineering,
164 Howard Park Avenue.
- M JOHN FRANKLIN UREN, M.D., C.M.,
Associate in Surgery and Clinical Surgery,
620 Church Street.
- M JOHN FAIR VAN EVERY, B.A.,
Lecturer in English Expression,
13 Wells Street
- A MISS MOSSIE MAY WADDINGTON, PH D.,
Lecturer in English, (C.)
94 St. George Street.
- A WILLIAM STEWART WALLACE, B.A., M.A., OXON.,
Special Lecturer in History, (U.)
59 Poplar Plains Road.
- A REV. JOSEPH BASIL WALSH, M.A.,
Lecturer in Latin, (M.)
St. Michael's College.
- Ms HEALEY WILLAN, MUS. DOC.,
Lecturer in Theory of Music,
139 Inglewood Drive.
- A MISS GLADYS EMILY WOOKEY, B.A.,
Lecturer in English, (C.)
181 Lowther Avenue.
- A MISS JESSIE GERTRUDE WRIGHT, M.A.,
Lecturer in Botany, (U.)
46 Avenue Road
- S WILLIAM JAMES TURNBULL WRIGHT, M.B.E., B.A.Sc.,
Lecturer in Drawing,
126 Melrose Avenue.
- A HUMPHREY HUME WRONG, B.A., B.A., OXON.,
Lecturer in History, (U.)
73 Walmer Road.

OTHER APPOINTMENTS.

- R FRANK BOLTON ADAMSTONE, B.A.,
Research Assistant in Biology,
86 Eglinton Avenue East.
- A DONALD STUART AINSLIE, M.A.,
Demonstrator in Physics, (U.)
59 Sussex Street.

- A MISS EDITH ALEXANDER, B.A.,
Temporary Assistant in English for the Reading of Essays, (C.),
 155 Spadina Road.
- M ROBERT GARDINER ARMOUR, B.A., M.B.,
Clinician in Medicine,
 98 St. George Street.
- S CHRISTOPHER GILLETTE RUSSELL ARMSTRONG, B.A.Sc.,
Demonstrator in Drawing,
 350 Montrose Avenue.
- A HAROLD GROVER ARMSTRONG, M.B.,
Demonstrator in Biology, (U.)
 627a Vaughan Road.
- M FREDERICK ALLEN AYLESWORTH, M.D., C.M., MCGILL,
Demonstrator in Ophthalmology,
 112 College Street.
- A HAROLD DE WITT BALL, M.B.,
Class Assistant in Biology, (U.)
 178 Sherbourne Street.
- M FREDERICK GRANT BANTING, M.C., M.B.,
Assistant in Pharmacology,
 34 Grenville Street.
- A HARRY CLIFFORD BATES, B.A.,
Demonstrator in Physics, (U.)
 Gate House, Victoria College.
- A HUGH PHILIP BELL, M.Sc., DALHOUSIE, M.A.,
Assistant in Botany, (U.)
 223 Avenue Road.
- R JOHN CLIFFORD BELL, B.A.Sc.,
Research Assistant in Chemical Engineering.
 2 Sanford Avenue.
- A GARVEN HUGH BERKELEY, B.A., QUEEN'S, M.A.,
Assistant in Botany, (U.)
 41 Hillsboro Avenue.
- A CHARLES HERBERT BEST, B.A.,
Fellow in Physiology, (U.)
 142 St. George Street.
- A LOUIS AUGUSTE BIBET,
Instructor in French, (C., T.)
 47 Cecil Street.
- A NORMAN KIER BIGELOW, B.Sc., IOWA,
Assistant in Systematic Biology, (U.)
 138 Yorkville Avenue.

- M MISS DOROTHY BIRKETT, PHM.B.,
Assistant in Pharmacy,
 577 Jarvis Street.
- A VINCENT WHEELER BLADEN, B.A., OXON.,
Instructor in Political Economy, (U.)
 135 Beatrice Street.
- A FRANK LEVER BLAKE,
Assistant in Astronomy, (U.)
 65 Bealy Avenue.
- M DAVID HARVEY BODDINGTON, M.B.,
Demonstrator in Pathological Chemistry,
 81 Willcocks Street.
- A HENRY BORSOOK, B.A.,
Fellow in Bio-Chemistry, (U.)
 246 Lippincott Street.
- M EDMUND BOYD, B.A., M.B.,
Demonstrator in Oto-Laryngology,
 143 College Street
- M MISS GLADYS LILLIAN BOYD, M.B.,
Research Fellow in Pediatrics,
 55 Albany Avenue.
- M GEORGE FLORIAN BOYER, M.D.,
Clinician in Medicine,
 143 College Street.
- A THOMAS ROBERT SHANNON BROUGHTON, B.A.,
Fellow in Latin, (V.)
 South House, Victoria College.
- S HENRY SPEIGHT BROWN, B.A.Sc.,
Demonstrator in Electrical Engineering,
 Lansing, Ontario.
- M FREDERICK MATHEW RAYMOND BULMER, M.B.,
Fellow in Therapeutics,
 592 Ossington Avenue.
- M JOHN CAMPBELL CALHOUN, M.B.,
Demonstrator in Oto-Laryngology,
 155 Bloor Street East.
- M GORDON CAMPBELL CAMERON, M.B.,
Fellow in Pathology,
 65 Hilton Avenue.
- M MALCOLM HECTORSON VALENTINE CAMERON, M.B.,
Demonstrator in Clinical Surgery,
 11 Prince Arthur Avenue.
- M ANGUS ALEXANDER CAMPBELL, M.B.,
Demonstrator in Oto-Laryngology,
 151 Bloor Street West.

- M WALTER RUGGLES CAMPBELL, M.A., M.D.,
Clinician in Medicine,
149 Beatrice Street.
- M ALAN WOODBURN CANFIELD, M.D., C.M.,
Clinician in Medicine,
462 Avenue Road.
- R ROBERT CHARLES CANTELO, M.Sc., QUEEN'S,
Research Assistant in Chemical Engineering,
84 Pembroke Street.
- M WILLIAM HERBERT CARVETH, M.B.,
Assistant in Anaesthesia,
178 Huron Street.
- M HARRY ARTHUR CATES, M.B.,
Demonstrator in Anatomy,
150 Main Street, Weston.
- M ALFRED HANS WARING CAULFEILD, M.B.,
Clinician in Medicine,
13 Spadina Road.
- S STUART KEITH CHENEY, B.A.Sc.,
Demonstrator in Electrical Engineering,
127 Givens Street.
- A JAMES EVERETT CLARK, B.A.Sc.,
Assistant in Chemistry, (U.)
140 Galley Avenue.
- M FREDERICK ARNOLD CLARKSON, M.B.,
Clinician in Medicine,
421 Bloor Street West
- M ERNEST EDGAR CLEAVER, B.A., M.B.,
Clinician in Medicine,
155 Bloor Street East.
- M FREDERICK ADAM CLELAND, B.A., M.B.,
Demonstrator in Clinical Surgery,
131 Bloor Street West.
- M HERBERT ERNEST CLUTTERBUCK, M.D., C.M.,
Assistant in Clinical Surgery,
148 Grace Street.
- S FREDERICK COATES,
Instructor of Modelling,
146 Springhurst Avenue.
- H MISS HELEN ROBERTSON COATSWORTH, B.A.,
Research Worker and Laboratory Assistant in Household Science,
1 May Square.

- M EDWARD COOPER COLE, O.B.E., B.A., M.B.,
Demonstrator in Therapeutics,
 320 Bloor Street West
- M WARING GERALD COSBIE, M.C., M.B.,
Fellow in Obstetrics and Gynaecology,
 30 Douglas Drive.
- M WILLIAM ALFRED COSTAIN, M.B.,
Temporary Assistant in Clinical Surgery,
 64 Bloor Street East.
- P MISS KATE S. COWAN,
Supervisor of Field Work,
 11 Harbord Street.
- S HAROLD CREIGHTON CRANE, B.A.Sc.,
Demonstrator in Electrical Engineering,
 50 Simpson Avenue.
- A MISS KATHLEEN MAY CROSSLEY, B.A.,
Demonstrator in Physics, (U.)
 84 St. George Street.
- M JOHN GRANT CUNNINGHAM, B.A., M.B., D.P.H.,
Demonstrator in Industrial Hygiene,
 252 Hillcrest Drive.
- A JOHN ELGIN CURRIE, B.A.,
Demonstrator in Physics, (U.)
 West House, Knox College.
- S JOHN HOWARD CURZON,
Demonstrator in Drawing,
 Birch Cliff.
- M SMITH LANCELOT EVERETT DANBY, M.B.,
Fellow in Pathology,
 64 Isabella Street.
- S WILFRID ALAN DANCEY, B.A.Sc.,
Demonstrator in Electrical Engineering,
 23 Surrey Place.
- A GRANT DOOKS DARKER,
Class Assistant in Botany, (U.),
 Streetsville.
- M GEORGE ALBERT DAVIS, B.A., M.B.,
Class Assistant in Biology, (U.),
 1550 Yonge Street.
- M MISS JEAN DEAS, B.A.,
Assistant in Pharmacy,
 Athelma Apartments, Grosvenor Street.
- M HERBERT KNUDSEN DETWEILER, M.D.,
Clinician in Medicine,
 73 Regal Road

- A HARLEY WESTON DEWEY,
Assistant in Astronomy, (U.)
South House, Victoria College.
- M W. H. DICKSON,
Clinical Assistant in Radiology,
88 Woodlawn Avenue West.
- M HAMNETT ALONZO DIXON, M.B.,
Clinician in Medicine,
122 Bloor Street West
- R FRANCIS PATRICK DOWNEY, B.A.Sc.,
Research Assistant in Chemical Engineering.
1033 Bathurst Street.
- M THEODORE GEORGE HARWOOD DRAKE, M.B.,
Fellow in Pathological Chemistry,
11 College Street.
- R ALEXANDER ROBERT DUFF, B.A.Sc.,
Research Assistant in Civil Engineering,
211 Fern Avenue.
- M THOMAS ALEXANDER JAMIESON DUFF, M.B.,
Temporary Assistant in Clinical Surgery,
124 Bloor Street West.
- S WILLIAM BOWIE DUNBAR, B.A.Sc.,
Demonstrator in Drawing,
26 Ozark Crescent.
- A WILLIAM SPAFFORD DYER, B.A.,
Class Assistant in Geology and Palaeontology, (U.)
214 Western Avenue.
- A MISS HAZEL ISOBEL EADIE, B.A.,
Assistant Demonstrator in Physics, (U.)
899 Queen Street West.
- M GEORGE HARDEY EAGLES, M.B.,
Fellow in Pathology,
Y.M.C.A., 40 College Street.
- M JABEZ HENRY ELLIOTT, M.B.,
Clinician in Medicine,
11 Spadina Road.
- M ISAAC H. ERB, M.B.,
Assistant in Pathology,
1549 Bloor Street West.
- A MISS GRACE EVANS,
Class Assistant in Psychology, (U.),
197 College Street.
- S JOSEPH ELGIN FASKEN, B.A.Sc.,
Demonstrator in Chemical Engineering and Applied Chemistry,
661 Euclid Avenue.

- S CECIL BRUCE FERRIS, D.C.M., B.A.Sc.,
Demonstrator in Drawing,
 94 Sherwood Avenue.
- A WALTER RAYMOND FETZER, B.A., WESLEYAN, M.A.,
Demonstrator in Electro-Chemistry, (U.)
 120 Brunswick Avenue.
- R EDWARD FIDLAR, B.A., M.B.,
Research Fellow in Physiology,
 310 Huron Street.
- A DONALD MUNRO FINDLAY, B.A.,
Assistant in Chemistry, (U.)
 11 Helena Avenue.
- M ROBERT OVENS FISHER, M.B.,
Assistant in Anatomy,
 343 Sherbourne Street.
- M ANDREW ALMON FLETCHER, M.B.,
Clinician in Medicine,
 143 College Street.
- M DONALD ROY FLETCHER, M.D., C.M., QUEEN'S,
Demonstrator in Psychiatry.
 999 Queen Street West.
- A MISS MARGARET ISABEL FLETCHER,
Class Assistant in Psychology, (U.)
 63 Foxbar Road.
- A MISS NORMA HENRIETTA CARSWELL FORD, B.A.,
Special Assistant in Biology, (U.)
 96 Dunn Avenue.
- S HAROLD JAMES FRANKLIN, B.A.Sc.,
Instructor in Drawing,
 72 Delaware Avenue.
- A MISS CHRISTINA JANE FRASER, M.A.,
 R *Fellow in Physiology, (U.) and Assistant in Dental Research,*
 218 Cottingham Street.
- M NICHOLAS D'ARCY FRAWLEY, M.B.,
Demonstrator in Obstetrics and Gynaecology,
 503 Markham Street.
- M ROBERT EDWARD GABY, B.A., M.D., CORNELL,
Demonstrator in Clinical Surgery,
 662 Bathurst Street.
- M OLIVER H. GAEBLER, A.B., CENTRAL WESLEYAN COLLEGE, A.M.,
 MISSOURI,
Senior Fellow in Pathological Chemistry,
 71 Grenville Street.

- M JOHN GORDON GALLIE, B.A., M.B.,
Demonstrator in Obstetrics and Gynaecology,
143 College Street.
- H MISS MURIEL CAMERON GALT, B.A.,
Instructor in Food Chemistry,
21 Washington Avenue.
- A CARL SCHLOSS GILBERT, B.S., AKRON, M.A.,
Assistant in Chemistry, (U.)
10 Maitland Street.
- M ARTHUR MELVILLE GOULDING, B.A., M.D., HARVARD,
Clinician in Medicine,
88 Warren Road.
- M ROSCOE REID GRAHAM, M.B.,
Assistant in Clinical Surgery,
112 College Street.
- H MISS FLORENCE MARIE GRAPER, B.S., WISCONSIN,
Instructor in Household Science,
59 Grosvenor Street.
- S WILLIAM FOSTER GREEN, M.A.,
Demonstrator in Mining Engineering,
717 Dovercourt Road.
- M NORMAN BEECHEY GWYN, M.B.,
Clinician in Medicine,
48 Bloor Street East.
- A EUGENE HAAS, B.S., AKRON, M.A.,
Assistant in Chemistry, (U.)
10 Maitland Street.
- A MISS HULDA ISABEL HAINING, M.A.,
Assistant in Botany, (U.)
327 Huron Street.
- M CHARLES H. HAIR, M.D., C.M.,
Assistant in Clinical Surgery,
545 Palmerston Boulevard.
- M JOHN C. HALLAMORE, PHM.B.,
Assistant in Pharmacy,
739a Ossington Avenue.
- S ALBERT EDWARD HAMILTON, B.A.Sc.,
Demonstrator in Electrical Engineering,
4 Grandview Avenue.
- A FREDERICK CARLYLE HAMILTON,
Class Assistant in Biology, (U.)
415 Ontario Street.

- M THOMAS RICHARD HANLEY, B.A., M.B.,
Assistant in Anaesthesia,
 124 Bloor Street West.
- M BEVERLEY HANNAH, M.B.,
Clinician in Medicine,
 155 Bloor Street East.
- R BENJAMIN THOMAS PATRICK HANNAN, B.A.Sc.,
Research Assistant in Mining Engineering,
 181 Willow Avenue.
- A MISS CORNELIA HARCUM, B.A., GOUCHER, M.A., PH.D., JOHNS
 HOPKINS,
Assistant in Archaeology, (U.)
 113 Bloor Street West.
- A WILLIAM JOHN KNOX HARKNESS,
Class Assistant in Biology, (U.)
 67 Charles Street West.
- A MISS EVANGELINE HARRIS, B.A., B.A., OXON.,
Instructor in Latin, (C.)
 94 St. George Street.
- M ROBERT INKERMANN HARRIS, M.C., M.B.,
*Demonstrator in Surgery and Temporary Assistant
 in Clinical Surgery,*
 311 Avenue Road.
- M ALFRED PURVIS HART, M.B.,
Clinician in Medicine,
 43 De Lisle Avenue.
- H MISS CARLOTTA MAUDE HARWOOD, B.A.,
Instructor in Food Chemistry,
 84 Admiral Road.
- A MISS DAISY DENSHAM HEARN,
Research Assistant in Psychology (U.),
 249 Dovercourt Road
- S SAMUEL ELDIN HENRY, B.A.Sc.,
Demonstrator in Thermodynamics,
 64 St. George Street.
- S GORDON HEPBURN, B.A.Sc.,
Demonstrator in Electrical Engineering,
 49 Tranby Avenue.
- S OTTO WILFRID HERZBERG, B.A., M.Sc., MCGILL,
*Demonstrator in Chemical Engineering and Applied
 Chemistry,*
 Hart House, University of Toronto.
- M CLARENCE EDGAR HILL, M.B.,
Demonstrator in Ophthalmology,
 160 Bloor Street West.

- M FREDERICK WILLIAM WATTS HIPWELL, M.B.,
Assistant in Pharmacology,
 452 Danforth Avenue.
- M RAY HODGE, B.A., M.D.,
Clinician in Medicine,
 34 Rowanwood Avenue.
- S UBERT CECIL HOLLAND, B.A.Sc.,
Assistant in Machine Design,
 93 Pacific Avenue.
- M MISS HELEN DORIS HOWELL, B.A.,
Research Assistant in Zymology,
 31 St. Joseph Street.
- M GOLDWIN WILLIAM HOWLAND, B.A., M.B.,
Clinician in Medicine,
 147 Bloor Street West.
- S THOMAS FLOYD HOWLETT, B.A.Sc.,
Demonstrator in Electrical Engineering,
 9 Page Street.
- S CHESTER ARTHUR HUGHES, M.M., B.A.Sc.,
*Demonstrator in Civil Engineering and Applied
 Mechanics,*
 Mimico Beach.
- M JOHN JOSEPH HURLEY, M.B.,
Assistant in Anaesthesia,
 995 Bathurst Street.
- M HENRY SEATON HUTCHISON, M.B.,
Clinician in Medicine,
 30 Walker Avenue.
- A MISS IRENE VICTORIA JACKSON, B.A.,
Fellow in Mathematics, (U.)
 68 Regal Road.
- S KENNETH BELL JACKSON, B.A.Sc.,
Demonstrator in Engineering Physics,
 35 Grosvenor Street.
- M ROSS JAMIESON, B.A., M.B.,
Clinician in Medicine,
 155 Bloor Street East.
- M ROBERT MERRIDETH JANES, M.B.,
*Fellow in Surgery, Temporary Assistant in Clinical
 Surgery and Clinician in Medicine.*
 Hospital for Sick Children.
- S CHARLES WILLIAM JEFFERYS,
Instructor in Freehand Drawing,
 York Mills.

- S PERCY VANDELEM JERMYN, B.A.Sc.,
Demonstrator in Drawing,
Port Credit.
- M SAMUEL JOHNSTON, M.A., M.D., C.M.,
Demonstrator in Anaesthesia,
108 Avenue Road.
- S REGINALD DAWSON KEENLEYSIDE, B.A.Sc.,
Demonstrator in Thermodynamics,
78 College Street.
- A ALEXANDER LACEY, M.A.,
Instructor in French, (T.)
145 Hillingdon Avenue.
- M WALTER WHITNEY LAILEY, B.A., M.B.,
Demonstrator in Obstetrics and Gynaecology,
43 Avenue Road.
- S MISS JANET CARLYLE LAING, B.A.,
Instructor in the Department of Architecture,
39 MacFarland Avenue.
- M HARRY MILL LANCASTER, B.A.Sc.,
S *Instructor in Sanitary Chemistry,*
22 Palmerston Gardens.
- A MISS JESSIE MARGARET LANG, B.A.,
Fellow in Physiology, (U.)
20 Leopold Street.
- A JAMES KYRAN LATCHFORD, B.A., M.B.,
Fellow in Physiology and Laboratory Assistant in
Psychology, (U.)
151 St. George Street.
- M GEORGE FRANKLIN LAUGHLIN, M.D., C.M.,
Assistant in Pathology,
495 Broadview Avenue.
- M ALEXANDER SMIRLE LAWSON, M.B.,
Assistant in Anatomy,
82 College Street.
- A WALTER BREWSTER LEAF, B.S., UTAH, M.A.,
Assistant in Chemistry, (U.)
19 Harbord Street.
- R ALEXANDER HENRY LEIM, B.A.,
Research Assistant in Biology,
10 Eastmount Avenue.
- M ARTHUR BAKER LE MESURIER, M.B.,
Temporary Assistant in Clinical Surgery,
59 Spadina Road.

- M JAMES ALEXANDER LINTON, M.C., M.B.,
Fellow in Pathology,
567 Christie Street.
- A FREDERICK REGINALD LORRIMAN, B.A.,
Assistant in Chemistry, (U.)
Y.M.C.A., 40 College Street
- M JULIAN DERWENT LOUDON, B.A., M.B.,
Clinician in Medicine,
83 St. George Street.
- M GLADSTONE WILFRED LOUGHEED, M.C., M.D.,
Demonstrator in Clinical Microscopy,
728 Dovercourt Road.
- M DONALD MACKINTOSH LOW, M.B.,
Resident Fellow in Obstetrics and Gynaecology,
Toronto General Hospital.
- M WILLIAM HERBERT LOWRY, M.D., C.M.,
Demonstrator in Ophthalmology,
100 College Street.
- M MORTIMER LYON, M.D., C.M.,
Demonstrator in Ophthalmology,
122 Bloor Street West.
- A WILLIAM JOHN MCANDREW, M.A.,
Instructor in French, (C.)
144 Balliol Street.
- A JOHN WOOD MACARTHUR, A.B., OBERLIN, M.A., WABASH, Ph.D.,
CHICAGO,
Demonstrator in Physiology, (U.)
319 Roehampton Avenue.
- M JAMES CLARENCE MCCLELLAND, B.A., M.B.,
*Demonstrator in Surgery and Temporary Assistant in
Clinical Surgery,*
151 Bloor Street West.
- M ROBERT JAMES AVERY MCCOMB, M.B.,
Temporary Assistant in Clinical Surgery,
40 Gothic Avenue.
- A NORMAN ARNOLD MCCORMICK,
Class Assistant in Biology, (U.)
South House, University of Toronto.
- A ALBERT ERNEST MCCULLOCH, B.A., M.B.,
Class Assistant in Biology, (U.)
165 St. Clair Avenue West.
- M EDWARD ALLISTER MCCULLOCH, B.A., M.B.,
Assistant in Anatomy,
165 St. Clair Avenue West.

- R DONALD MONTEITH MACDONALD, B.A.Sc.,
Research Assistant in Mechanical Engineering.
22 Summerhill Avenue.
- S GORDON GRANT MACDONALD, B.A.Sc.,
Demonstrator in Chemical Engineering and Applied Chemistry,
88 Indian Grove.
- M JAMES ALEXANDER MACDONALD, PHM.B.,
Assistant in Pharmacy,
34 Hogarth Avenue.
- A JOHN HENRY ALLAN MACDONALD, M.B.,
Class Assistant in Biology, (U.)
99 Bleecker Street.
- A JOHN MACKAY MACDONALD, M.D., C.M.,
Class Assistant in Biology, (U.)
687 Pape Avenue.
- A MISS JENNIE MCFARLANE, M.A.,
Demonstrator in Biochemistry, (U.)
162 Fairview Avenue.
- SS MISS AGNES CHRISTINE MCGREGOR,
Director of Field Work,
Apt. 2, The Meldrum, 388 Brunswick Avenue.
- M GEORGE CRARER MCINTYRE, M.B.,
Assistant in Clinical Surgery,
469 Parliament Street.
- M ANGUS MACKAY, M.B.,
Assistant in Pathology,
606 Spadina Avenue.
- M ALEXANDER JOHN MACKENZIE, B.A., M.B., LL.B.,
Clinician in Medicine,
12 Avenue Road.
- M KENNETH GEORGE MCKENZIE, M.B.,
Assistant in Anatomy,
1017 Bathurst Street.
- M MATTHEW DONALD MCKICHAN, B.A., M.B.,
Assistant in Anaesthesia,
686 Broadview Avenue.
- S HENRY KEITH MACLEAN, B.A.Sc.,
Demonstrator in Electrical Engineering,
49 Spencer Avenue.
- M DUNCAN NEIL MACLENNAN, M.D., C.M.,
Demonstrator in Ophthalmology,
126 Bloor Street West.

- A CLARENCE HAROLD MCLEOD, B.A.,
Assistant in Botany, (U.)
 North House, Knox College
- A ARCHIBALD GEORGE MCPHEDRAN, B.A., M.B.,
 M *Class Assistant in Biology, (U.) and Clinician in*
Medicine,
 923 College Street
- M JOHN HARRIS MCPHEDRAN, M.B.,
Clinician in Medicine,
 33 Dupont Street.
- M WILLIAM FLETCHER MCPHEDRAN, B.A., M.B.,
Clinician in Medicine,
 15 Bernard Avenue.
- M OLIVER RAYMOND MABEE, PHM.B., M.D., C.M., MCGILL,
Demonstrator in Clinical Surgery,
 419 Bloor Street West.
- M MRS. JANE SPROULE MANSON, M.B.,
Demonstrator in Oto-Laryngology,
 250 Huron Street.
- M ARNOLD DENLOW ALFRED MASON, D.D.S.,
Demonstrator in Dental Surgery,
 7 Schofield Avenue.
- A MISS JEAN MASTEN,
Class Assistant in Psychology, (U.)
 29 Bedford Road.
- S GEORGE DEAN MAXWELL, B.A.SC.,
Demonstrator in Drawing,
 233 Albany Avenue.
- A MISS HAZEL CLAIRE MILLAR, M.A.,
Demonstrator in Physics, (U.)
 290 Huron Street.
- A MISS KATIE MAUD MILLAR,
Class Assistant in Botany (U.),
 533 Sherbourne Street.
- M AMBROSE BELL MOFFAT, B.A., M.B.,
Assistant Demonstrator in Clinical Microscopy,
 1028 Logan Avenue.
- M PETER JOSEPH MOLONEY, M.A.,
Demonstrator in Hygiene,
 Scarborough Junction.
- M EDWARD ARCHIBALD MORGAN, M.B.,
Clinician in Medicine,
 310 Bloor Street West.

- A JOSEPH ALAN MORRELL, B.A.,
Fellow in Bio-chemistry, (U.)
404 Dupont Street.
- A NEIL FARQUHARSON MORRISON, B.A.,
Class Assistant in Biology, (U.)
249 Major Street.
- S JAMES MURRAY MUIR, B.A.Sc.,
Demonstrator in Drawing and in Mining Engineering,
695 Keele Street.
- M LEONARD M. MURRAY, M.D., C.M., MCGILL,
Clinician in Medicine,
48 Bloor Street East.
- H MISS RACHEL MARION NEVILL, B.A.,
Assistant in Food Chemistry,
21 Washington Avenue.
- A EDWARD CLARK NOBLE, B.A.,
Fellow in Physiology, (U.)
216 St. Clair Avenue West.
- A WILLIAM GARNET NOBLE, B.A.,
Assistant in Chemistry, (U.)
Gate House, Victoria College.
- M WILLIAM EDWARD OGDEN, M.B.,
Clinician in Medicine,
9 Spadina Road.
- M JOHN ALLAN OILLE, M.D.,
Clinician in Medicine,
69 South Drive.
- A STEWART URQUHART PAGE, M.A.,
Fellow in Physiology, (U.)
941 Bathurst Street.
- M THOMAS JEFFERSON PAGE, M.B.,
Clinician in Medicine,
941 Bathurst Street.
- M LAUREL COLE PALMER, M.C., M.B.,
Assistant in Anatomy,
1081 St. Clair Avenue West.
- H MISS EDNA WILHELMINE PARK, M.A.,
Instructor in Household Science,
25 Grosvenor Street.
- M CHARLES BEMISTER PARKER, B.A., M.B.,
Assistant in Clinical Surgery,
52 College Street.
- M HAROLD CAMPBELL PARSONS, M.A., M.D., C.M.,
Clinician in Medicine,
6 Clarendon Avenue.

- S ELVIN L. PATERSON, B.A.Sc.,
*Demonstrator in Civil Engineering and Applied
 Mechanics,*
 60 Sussex Avenue.
- A JOSEPH ALGERNON PEARCE, B.A.,
Demonstrator in Astronomy, (U.)
 163 Collier Street.
- A MISS EDNA MAY PEAREN, B.A.,
Assistant Demonstrator in Physics, (U.)
 330 Huron Street.
- M ROBIN PEARSE, F.R.C.S.,
Assistant in Clinical Surgery,
 206 Bloor Street West.
- A LEON AMIABLE PEQUEGNAT, M.B.,
 M *Class Assistant in Biology, (U.) and Assistant in
 Anatomy,*
 741 Dovercourt Road.
- M ALFRED HARSHAW PERFECT, M.B., M.D., C.M.,
Demonstrator in Clinical Surgery,
 201 Annette Street.
- A MISS LILLIAN MAY PHILLIPS, B.A.,
Fellow in Mathematics, (U.)
 271 Sherbourne Street.
- M GEORGE ROWE PHILP, M.B.,
Assistant in Pathology,
 607 Sherbourne Street.
- M GEORGE ROBINSON PIRIE, M.B.,
Clinician in Medicine,
 220 Bloor Street West.
- A MISS FLORENCE MARY QUINLAN, M.A.,
Demonstrator in Physics, (U.)
 33 Margueretta Street.
- M WALTER SOUTHARD QUINT, B.Sc., DARTMOUTH, M.B.,
Fellow in Pathological Chemistry,
 72 Hogarth Avenue.
- M CECIL ALEXANDER RAE, M.B.,
Clinician in Medicine,
 Isolation Hospital.
- S JOHN THOMAS RANSOM, B.A.Sc.,
Demonstrator in Engineering Physics,
 171 Arlington Avenue.
- A JAMES HAMILTON RATCLIFF, B.A.Sc.,
Demonstrator in Electro-Chemistry (U.),
 6 Selby Street.

- A JAMES WALLER REBBECK, B.Sc., BRITISH COLUMBIA, M.A.,
Assistant in Chemistry, (U.)
 Gate House, Victoria College.
- A MISS ANNIE THERESA REED, B.A.,
Class Assistant in Physics, (U.)
 24 Willcocks Street.
- E MISS ALICIA ENID ROBERTSON, B.A.,
Instructor in Household Science,
 19 Hazelton Avenue.
- M DAVID EDWIN ROBERTSON, M.D.,
Demonstrator in Clinical Surgery,
 112 College Street.
- M LAWRENCE BRUCE ROBERTSON, B.A., M.B.,
Assistant in Clinical Surgery and Anatomy,
 143 College Street.
- A JOHN DANIEL ROBINS, B.A.,
Temporary Instructor in English, (C.)
 187 Lauder Avenue.
- M THOMAS ARNOLD ROBINSON, M.D., C.M., MCGILL,
Temporary Assistant in Clinical Surgery,
 147 Howard Park Avenue.
- M CHARLES HAROLD ROBSON, M.D., C.M.,
Assistant in Anaesthesia,
 26 Foxbar Road.
- S ORVILLE ROLFSON, M.A. Sc.,
Assistant in Chemical Engineering,
 324 Brunswick Avenue.
- M ALBERT HILL ROLPH, B.A., M.B.,
Clinical Assistant in Radiography,
 78 Crescent Road.
- R EDWARD ALFRED ROLPH, B.A.Sc.,
Research Assistant in Mining Engineering,
 26 Chestnut Park.
- M FREDERICK WHITNEY ROLPH, M.A., M.D., C.M.,
Clinician in Medicine,
 13 Madison Avenue.
- S WILLIAM LISTER SAGAR, B.A.Sc.,
*Demonstrator in Civil Engineering and Applied
 Mechanics,*
 306 Jarvis Street.
- S CHARLES PERCY SALE, B.A.Sc.,
*Temporary Assistant in Chemical Engineering and
 Applied Chemistry,*
 592 Church Street.

- A MISS LAILA CORDELIA SCOTT, M.A.,
Reader in French, (T.)
 St. Hilda's College.
- M WILLIAM ALBERT SCOTT, B.A., M.B.,
Demonstrator in Obstetrics and Gynaecology,
 75 Bloor Street East.
- S THOMAS PATTON GLADSTONE SHAW, B.Sc., MCGILL,
Demonstrator in Chemical Engineering and Applied Chemistry,
 49 Grenville Street.
- M CHARLES SHEARD, JR., M.B.,
Clinician in Medicine,
 52 College Street.
- M NORMAN STRAHAN SHENSTONE, B.A., M.D., COLUMBIA,
Demonstrator in Clinical Surgery,
 196 Bloor Street West.
- M HARRY JAMES SHIELDS, B.A., M.B.,
Assistant in Anaesthesia,
 102 College Street.
- M EDWARD EARLE SHOULDICE, M.B.,
Assistant in Anatomy and Temporary Assistant in Clinical Surgery,
 461 Dovercourt Road.
- A JOHN HUGH SIMESTER, B.S., SASK.,
Fellow in Mathematics, (U.)
 8 Rathnally Avenue.
- S FRANCIS E. SIMPSON,
Assistant in Modelling,
 14 Lakeview Avenue.
- M ROY SIMPSON, M.B.,
Clinician in Medicine,
 280 Danforth Avenue.
- M DAVID KING SMITH, M.B.,
Clinician in Medicine,
 22 Wellesley Street.
- M GEORGE EDWARD SMITH, B.A., M.B.,
Clinician in Medicine,
 244 Bloor Street West.
- A RALPH GRAFTON SMITH, B.A.,
Fellow in Bio-Chemistry, (U.)
 24 Balmuto Street.
- A WILLMOT EDWARD LENOX SPARKS, M.B.,
Class Assistant in Biology, (U.)
 474 Windermere Avenue.

- A PHILIP DOUGLAS SPOHN, M.B.,
M *Class Assistant in Biology, (U.) and Assistant in
Anatomy,*
20 High Park Avenue.
- A ROBERT SPENCER STONE, B.A.,
Class Assistant in Biology, (U.)
40 Willcocks Street.
- A HUDSON JENNINGS STOWE,
Assistant in Astronomy, (U.)
463 Spadina Avenue.
- S DAVID KARL CRAWFORD STRATHEARN, B.A.Sc.,
Demonstrator in Hydraulics,
911 Dovercourt Road.
- M GEORGE STEWART STRATHY, M.D., C.M.,
Clinician in Medicine,
143 College Street.
- A WILFRID LAURIER SWANSON, B.A.,
Assistant in Mineralogy, (U.)
69 Maitland Street.
- S FRANK HAROLD TAYLOR, M.C., B.A.Sc.,
Demonstrator in Drawing,
13 Boustead Avenue.
- S ALFRED LEAROYD TENNYSON, B.A.Sc.,
Demonstrator in Electrical Engineering,
16 Maitland Street.
- A ALAN MILLER THOMAS, O.B.E., B.A.Sc.,
Assistant in Chemistry, (U.)
52 Elm Avenue.
- M ROY HINDLEY THOMAS, M.C., M.B.,
Temporary Assistant in Clinical Surgery,
167 College Street.
- A WILLIAM KIRK THOMPSON, B.A.Sc.,
Assistant in Chemistry, (U.)
1 Pretoria Avenue.
- R HARRY SCOTT THOMSON, D.M.D., TUFTS,
Research Assistant in Dentistry,
20 Summerhill Gardens.
- A ALFRED E. TILBY,
Instructor in French, (C.)
622 Spadina Avenue.
- M FREDERICK FITZGERALD TISDALL, M.B.,
Clinician in Medicine,
102 College Street.

- R ELDRED WALTON TODD, B.A.,
Research Assistant in Mineralogy,
 632 Woodbine Avenue.
- S GORDON FREDERICK TRACY, B.A.Sc.,
Research Assistant in Chemical Engineering,
 173 Walmer Road.
- M EMERSON JAMES TROW, M.B.,
Clinician in Medicine,
 122 Bloor Street West.
- S ARTHUR GRANT TURNBULL, B.A.Sc.,
Demonstrator in Electrical Engineering,
 51 Ann Street.
- S HOWELL ALFRED TUTTLE, B.A.Sc.,
Assistant in Thermodynamics,
 125 Bedford Road.
- M HERMON BROOKFIELD VAN WYCK, B.A., M.B.,
Assistant in Anatomy and Temporary Assistant in
Obstetrics and Gynaecology,
 280 Danforth Avenue.
- M FULTON SCHUYLER VROOMAN, M.B.,
Demonstrator in Psychiatry,
 999 Queen Street West.
- A MISS MARY EVELYN GERTRUDE WADDELL, M.A.,
Tutor in Mathematics, (U.)
 32 Madison Avenue.
- A ANSON ROBERTSON WALKER, B.A., QUEEN'S, M.A.,
Assistant in Botany, (U.)
 Prince Arthur Apartments.
- S ARTHUR WARDELL, B.A.Sc.,
Demonstrator in Drawing,
 4 Williamson Road.
- A WILFRID PARSONS WARNER, M.B.,
Demonstrator in Physiology, (U.)
 142 St. George Street.
- M WILLIAM VIRGIL WATSON, M.B.,
Assistant in Therapeutics,
 120 Quebec Avenue.
- S JULIUS JOHN WEICKER, B.A.Sc.,
Demonstrator in Hydraulics,
 1449 Gerrard Street East.
- A LOUIS ARTHUR WEISSGERBER, M.B.,
Fellow in Bio-Chemistry, (U.)
 80 College Street.

- M ROBERT WATSON WESLEY, M.B.,
Demonstrator in Obstetrics and Gynaecology,
 2 Spadina Road.
- S THOMAS MACDONALD WEST, B.A.Sc.,
Demonstrator in Mechanical Engineering,
 73 Homewood Avenue.
- A ALBERT ERNEST ROBERTS WESTMAN, B.A.,
Demonstrator in Electro-Chemistry, (U.)
 345 Indian Road.
- M FREDERICK WILLIAM WESTON, B.A., MCMASTER, M.B.,
Assistant in Anatomy,
 45 Avenue Road.
- A WILLIAM MENZIES WHITELAW, B.A.,
Temporary Assistant in English for the Reading of
Essays, (C.),
- A GLENN ARTHUR WILLIAMS, B.S., AKRON, M.A.,
Assistant in Chemistry, (U.)
 10 Maitland Street.
- S ALEXANDER CURRIE WILSON, B.A.Sc.,
Demonstrator in Drawing,
 283 Evelyn Avenue.
- M GEORGE EWART WILSON, M.B., F.R.C.S.,
Demonstrator in Surgery and Clinical Surgery,
 205 Bloor Street East.
- A KENNETH LLOYD WISMER, B.A.,
Assistant in Chemistry, (U.)
 430 Clinton Street.
- A OSWALD CHARLES JOSEPH WITHROW, M.B.,
Class Assistant in Biology, (U.)
 38 Albany Avenue.
- M JAMES HENRY WOOD, D.S.O., M.B.,
Temporary Assistant in Clinical Surgery,
 1062 Dovercourt Road.
- M HAROLD WILLIAM WOOKEY, M.B., F.R.C.S.,
Assistant in Anatomy, Demonstrator in Surgery and
Temporary Assistant in Clinical Surgery,
 186 Lowther Avenue.
- S GEORGE ROSS WORKMAN,
Demonstrator in Drawing,
 22 Helena Avenue.
- M ARTHUR BALDWIN WRIGHT, M.B.,
Demonstrator in Clinical Surgery,
 52 Poplar Plains Road.

- M WALTER WALKER WRIGHT, M.B.,
Demonstrator in Ophthalmology, 143 College Street.
- R ARTHUR MARSHALL WYNNE, M.A., QUEEN'S,
Research Assistant in Zymology, 27 Lytton Boulevard.
- M GEORGE SILLS YOUNG, B.A., M.B.,
Clinician in Medicine, 143 College Street.

ONTARIO COLLEGE OF EDUCATION.

JOHN OLIVER CARLISLE, M.A.,	333 Durie Avenue.
GEORGE ALTON CLINE, D.S.O., M.A.,	Hart House, University of Toronto.
ERNEST LE ROY DANIHER, B.A.,	26 Page Street.
HORACE ALEXANDER GRAINGER, B.A.,	25 Westmount Avenue.
DOUGLAS EWART HAMILTON, M.A., D.PAED.,	528 Palmerston Boulevard.
JOSEPH A. IRWIN, B.A.,	60 Grace Street.
WILLIAM JAMES LOUGHEED, M.A.,	316 Indian Road.
NORMAN LESLIE MURCH, B.A.,	27 Northcliffe Boulevard.
THOMAS M. PORTER,	64 Winchester Street.
WALTER LAWRENCE CHRISTIE RICHARDSON,	83 Pine Crest Road.
JOHN FAIR VAN EVERY, B.A.,	13 Wells Street.
WALTER HERBERT WILLIAMS, M.A., QUEEN'S,	198 Glenholme Avenue.
JAMES GEORGE WORKMAN, B.A.,	Birch Cliff Post Office.

CONSTITUTION AND ADMINISTRATION OF THE
UNIVERSITY

The constitution, powers and functions of the University are defined in "The University Act, 1906." (R.S.O., 1914, Chap. 279.)

The management of the property, finances and academic business of the University is entrusted to the Board of Governors, the Senate, Convocation, the Faculty Councils, the Council of University College and the Caput. The functions of these various bodies are exercised subject to supervision and control by the Crown, as hereafter explained.

1. THE CROWN.—The Lieutenant-Governor-in-Council has the power to appoint and to remove the Board of Governors (with the exception of the Chancellor and the President); to appoint and remove the Chairman of the Board; his assent is necessary before the Board can make any expenditure which impairs the endowment of the University or College; through the Provincial Auditor or someone else appointed by himself, he audits the accounts of the Board and he requires of them an Annual Report for submission to the Legislature.

2. THE BOARD OF GOVERNORS.—The Board of Governors consists of: The Chancellor and the President, *ex-officio*, and eighteen persons appointed by the Lieutenant-Governor-in-Council, one of whom is named as Chairman of the Board. The appointed members hold office for six years, and one-third of the number retires every two years, but these members are eligible for re-election. The Board has power to appoint the President of the University; and to appoint or remove all of the officers and servants of the University or University College upon the nomination or recommendation of the President. The government, conduct, management and control of the University and University College and of the property, revenues, business and affairs thereof are vested in the Board (University Act, 1906, Section 37), but all expenditures of endowment must be authorised by the Lieutenant-Governor-in-Council. The Board makes by-laws, rules and regulations regarding the investment of the funds; the selling and leasing of University properties; the letting of contracts; the appointment and removal of the Bursar and his assistants, clerks and other officers and servants of the University; the rate of salaries to be paid to the staff and officers; the fees to be paid by students; the annual appropriations and the transaction of other business.

3. THE SENATE.—The Senate consists of four classes of members: (1) Ex-officio members; (2) Faculty members; (3) Appointed members; and (4) Elected members. The ex-officio members are the Chancellor, the Chairman of the Board of Governors, the President of the University, the Principal of University College, the President or other head of each federated university or college, the Deans of the Faculties of Arts, Medicine, Applied Science and Engineering, Household Science, Education, Forestry

and Music, all past Chancellors, Vice-Chancellors and Presidents. Representation of the Faculties is made up as follows; The professors, not including the associate professors, of the Faculty of Arts of the University; five members of the Faculty of Medicine; five members of the Faculty of Applied Science and Engineering; two members of the Faculty of Education; three members from each of the four Arts Colleges, University College, Victoria University, Trinity College and St Michael's College. The appointed members consist of one representative appointed by each federated university, two by each federated college, one by the Law Society of Upper Canada and one by each federated institution, subject, however, in the latter case, to certain restrictions. The elected members number thirty-six, made up of twelve members representing the graduates in Arts who at graduation were enrolled in University College; five members each representing similar graduates in Victoria College and Trinity College; four representing the graduates in Medicine; two each representing the graduates in Applied Science and Engineering and in Agriculture; two representing the graduates in Law; and four representing the principals of collegiate institutes or high schools or assistants therein who are actually engaged in teaching in such institute or school. The graduates in Medicine and Law of Victoria University and Trinity College vote with the graduates of the University of Toronto in these same faculties.

The body thus composed is renewed once in four years, when all except the ex-officio members and the representatives of the Faculty of Arts of the University must retire, but are eligible for reappointment or re-election. The Chairman of the Senate is the President.

The Senate has the power to fill any vacancy which may occur among the elected members of the Senate and to return a final decision in any dispute which may arise in connection with the Senate elections. Among the powers and duties of the Senate are the following: To provide for the regulation and conduct of its proceedings; for the granting of degrees, including honorary degrees, and certificates of proficiency, except in Theology, for the establishment of exhibitions, scholarships and prizes; for the affiliation of any college established in Canada; for the dissolution or modification of the terms of affiliations; for the cancellation, recall and suspension of degrees; for the establishment of any faculty, department, chair or course of instruction in the University, or any department, chair or course of instruction in University College, except Theology; for the conduct of the election of members of the Senate; for the appointment of examiners and the conduct of all University examinations other than those in the faculties; for the representation on the Senate of any faculty which may hereafter be established; for the preparation and publication of the calendars; to consider and determine on the report of the faculties, the courses of study in these faculties; and all other courses of study for which no faculty is created; to consider and determine on the report of the various faculty councils, the appointment of examiners and the conduct and results of the examinations in these faculties; to consider such matters as may be

reported to it by the council of any faculty and to communicate its opinion or action thereon to the council, to hear and determine appeals from decisions of the faculty councils upon applications and memorials by students and others; to make rules and regulations for the management and conduct of the Library and to prescribe the duties of the Librarian; to make such changes in its own composition as may be deemed expedient; and to make such recommendations to the Board as may be deemed proper for promoting the interests of the University and of University College or for carrying out the objects and provisions of the Act.

4. **CONVOCATION.**—Convocation consists of the whole body of graduates of the University, in all faculties. Except indirectly through its elected representatives, no part of the management of the University is exercised by it as a whole. It elects the Chancellor, and, in divisions according to faculty, it elects members of Senate, as its representatives in Arts, Medicine, Law, Applied Science and Engineering and Agriculture. Any question relating to University affairs may be discussed by it, and a vote taken. The result of such discussion is communicated to the Senate, which must consider the representation made, and return to Convocation its conclusion thereon.

5. **FACULTY COUNCILS.**—The seven faculties of Arts, Medicine, Applied Science and Engineering, Household Science, Education, Forestry and Music have each a Council, the President being Chairman, ex-officio, of the first and the Deans of the respective faculties of the other five. All professors, associate professors and assistant professors engaged in teaching students of any faculty have a seat and vote upon the council of the faculty whose students they teach, lecturers also, provided they are upon the permanent staff, have a seat but no vote in the council. Each council is autonomous, and has the settlement in the first instance of all applications and memorials from its students, the drawing up of a curriculum of studies, and the appointment of examiners and conduct of examinations. In the case of applications and memorials the settlement by the council is subject to an appeal to the Senate; in the case of courses of studies, appointment of examiners and conduct of examinations, the decisions of the councils are subject to the approval of and confirmation by the Senate.

The Council of the Faculty of Arts includes the Principal of University College, the President or other head of every federated university, the Dean of the Faculty of Arts, the teaching staff of University, Victoria, Trinity and St. Michael's College (except in the case of those whose appointments are temporary), and one professor in the Department of Religious Knowledge appointed by each federated university or college.

6. **THE CAPUT.**—The Caput is a committee composed of the President, the Principal of University College, the Heads of the federated universities, the Heads of the federated colleges, and the Deans of the faculties of the University.

It has power to authorize teaching and lectures by others than the duly appointed members of the teaching staff, to exercise discipline over

students, where more than one college or one faculty is concerned, or where breaches of discipline occur outside the buildings or grounds appropriated to the several colleges and faculties.

7. THE COUNCIL OF UNIVERSITY COLLEGE.—This body is composed of the Principal and the professors, associate professors and assistant professors of the College. It has committed to it the direction and management of the College with full authority over and entire responsibility for the discipline (including the imposition of reasonable fines) of the undergraduates in relation to the lectures and other instruction of the professors, lecturers and other teachers of the College; and no lecturing or teaching of any kind may be carried on in the College by any other than the duly appointed professors or teachers without the authority of the Council.

8. FEDERATED INSTITUTIONS.—The following institutions are federated with the University, viz, Victoria College, Trinity College, St. Michael's College, Knox College and Wycliffe College. The president or other head of each is, ex-officio, a member of the Senate and of the University Council. In addition, Knox and Wycliffe Colleges each appoint two other representatives on the Senate. Victoria and Trinity Colleges each appoint one member and the graduates of each elect five more representatives to represent each College. All regular students matriculated in the University who are enrolled in University College or Victoria College or Trinity College or St. Michael's College and who enter their names with the Registrar of the University are entitled to free instruction in Arts in the University. But this provision does not include exemption from laboratory fees, nor does it apply to graduate instruction. When a federated college, by arrangement with the University Council, teaches any part of the Arts course the Board of Governors may make a reduction in the fees of students taught in such College.

9. REVENUES OF THE UNIVERSITY.—In addition to the income from the balance of the original endowment and additions made to it from time to time, the Legislature grants to the University, annually, the sum of \$500,000 from the revenues of the Province. In addition, the annual deficit upon maintenance account is borne by the Province.

MATRICULATION

MATRICULATION

SUBJECTS

A candidate for Pass Matriculation must write upon the examinations conducted by the Department of Education of Ontario in the following subjects of the Middle School:

LATIN (Authors, one paper; Composition, one paper)

ENGLISH (Literature, one paper; Composition, one paper)

HISTORY (British, one paper; Ancient, one paper)

MATHEMATICS (Algebra, one paper; Geometry, one paper)

Any two of:

GREEK (Authors, one paper; Composition, one paper)

FRENCH (Authors, one paper; Composition, one paper)

GERMAN (Authors, one paper; Composition, one paper)

SPANISH (Authors, one paper; Composition, one paper) *or*

ITALIAN (Authors, one paper; Composition, one paper)

EXPERIMENTAL SCIENCE (Physics, one paper; Chemistry, one paper) *or*

AGRICULTURE (Part I, one paper; Part II, one paper)

In certain cases foreign students may present themselves for examination in their language instead of Greek or French or German or Spanish or Italian when the language and the curriculum in that language have been approved by the Senate. The examination in an approved language consists of two years, similar in character to those in English.

A candidate for Honour Matriculation must write upon the examinations conducted by the Department of Education of Ontario in one or more of the following subjects of the Upper School:

GREEK (Authors, one paper; Composition, one paper)

LATIN (Authors, one paper, Composition, one paper)

ENGLISH (Literature, one paper; Composition, one paper)

FRENCH (Authors, one paper; Composition, one paper)

GERMAN (Authors, one paper; Composition, one paper)

SPANISH (Authors, one paper; Composition, one paper) *or*

ITALIAN (Authors, one paper, Composition, one paper)

HISTORY (one paper)

MATHEMATICS (Algebra, one paper; Geometry, one paper; Trigonometry, one paper; *Problems, one paper)

PHYSICS (one paper).

CHEMISTRY (one paper).

BIOLOGY (Botany, one paper; Zoology, one paper).

These examinations, both Pass and Honour, are conducted by the Department at various centres throughout the Province of Ontario in June and September of each year.

*For certain Scholarship candidates only, see pages 20 and 23.

STANDARDS

A candidate for Pass Matriculation will be allowed to write on one or more papers at a time in any order, and on obtaining at least fifty per cent. of the marks assigned to any paper will be given credit for having passed in such paper and will receive a certificate of such standing.

A candidate for Honour Matriculation will be allowed to write on one or more papers at a time in any order.

In order to secure First Class Honours in a subject a candidate must obtain at one examination at least seventy-five per cent. of the marks assigned to that subject and at least fifty per cent. in each paper of that subject.

In order to secure Second Class Honours in a subject a candidate must obtain at one examination at least sixty-six per cent. of the marks assigned to that subject and at least fifty per cent. in each paper of that subject.

In order to secure Third Class Honours in a subject a candidate must obtain at one examination at least sixty per cent. of the marks assigned to that subject and at least fifty per cent. in each paper of that subject.

A candidate who fails to obtain First, Second or Third Class Honours in a subject under the above regulations, may secure credit for the subject by obtaining at least fifty per cent. on each paper of the subject, not necessarily at one examination.

Such credit in a subject will be accepted by the University as covering the Honour Matriculation requirement with respect to that subject for admission to any faculty.

Such credit in a subject will also be accepted by the University as entitling the candidate, if registered in the Faculty of Arts, to exemption from the Pass work of the First Year in that subject, wherever the subject is included in the First Year of the Pass Course.

FACULTY OF ARTS

A candidate for admission to the First Year in the Faculty of Arts must produce satisfactory certificates of good character and of having completed the sixteenth year of his age on or before the first of October of the year in which he proposes to register.

A candidate for admission to the First Year of the Pass Course must present certificates covering not only complete Pass Matriculation but also the requirements outlined in one of the following subsections:

(a) Credit (fifty per cent.) at the Honour Matriculation examination in two of English, Latin, French, Algebra and Geometry, Greek *or* German *or* Spanish, Physics and Chemistry *or* Biology.

(b) At least seventy-five per cent. at the Pass Matriculation examination in each of any four of the twelve papers required; or at least sixty-six per cent. in each of any six of the twelve papers.

(c) The successful completion of the course at an Ontario Normal School.

A candidate for admission to the First Year of an Honour Course must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation examination in the subjects prescribed below for the Honour Course which he wishes to enter.

CLASSICS:—Greek, Latin, Mathematics (Algebra and Geometry) and one of French, German, Physics, Biology; preferably French or German.

GREEK AND HEBREW:—Greek, Latin, Mathematics (Algebra and Geometry) and one of English, French, German.

FRENCH GREEK AND LATIN:—Latin, Mathematics (Algebra and Geometry) and two of Greek, English, French.

MODERN LANGUAGES:—Latin, French, Mathematics (Algebra and Geometry) and one of English, German, History.

ENGLISH AND HISTORY:—Latin, Mathematics (Algebra and Geometry) and two of English, Greek, French, German.

MODERN HISTORY: } Latin, Mathematics (Algebra and Geometry),
POLITICAL SCIENCE: } History or English, and French or German.

COMMERCE AND FINANCE:—Latin, English, Mathematics (Algebra, Geometry and Trigonometry) and French or German.

PHILOSOPHY:—Latin, English, Mathematics (Algebra and Geometry) and one of History, Greek, French, German, Physics.

PHILOSOPHY ENGLISH AND HISTORY:—Latin, Mathematics (Algebra and Geometry), one of History, English, Physics, and one of Greek, French, German.

PSYCHOLOGY:—Latin, Mathematics (Algebra, Geometry and Trigonometry), French or German, and one of Physics, Biology, Chemistry.

MATHEMATICS: } Latin, Mathematics (Algebra, Geometry
MATHEMATICS AND PHYSICS: } and Trigonometry), Physics, and
French or German.

PHYSICS:

BIOLOGY:

PHYSIOLOGY AND BIOCHEMISTRY:

BIOLOGICAL AND MEDICAL SCIENCES:

CHEMISTRY AND MINERALOGY:

CHEMISTRY:

GEOLOGY AND MINERALOGY:

HOUSEHOLD SCIENCE:

SCIENCE FOR TEACHERS:

} Latin, Mathematics (Algebra, Geometry and Trigonometry), French or German, and one of Physics, Biology, Chemistry.

HOUSEHOLD ECONOMICS:—Latin, Mathematics (Algebra and Geometry) and two of English, French or German, Physics, Biology, Chemistry; preferably French or German and a science.

A candidate for admission to the First Year of the Course in Commerce must present certificates giving him *full* credit in the following subjects of Pass and Honour Matriculation:

PASS MATRICULATION

ENGLISH (Literature and Composition)

HISTORY (British and Ancient)

MATHEMATICS (Algebra and Geometry)

Three of:

GREEK (Authors and Composition)

LATIN (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition) *or*

ITALIAN (Authors and Composition)

EXPERIMENTAL SCIENCE (Physics and Chemistry)

of which one at least must be modern language.

HONOUR MATRICULATION

ENGLISH (Literature and Composition)

MATHEMATICS (Algebra, Geometry and Trigonometry)

One of:

GERMAN (Authors and Composition)

FRENCH (Authors and Composition)

SPANISH (Authors and Composition).

FACULTY OF MEDICINE

A candidate for admission to the First Year in the Faculty of Medicine must produce satisfactory certificates of good character and of having completed the seventeenth year of his age on or before the first of October of the year in which he proposes to register; only under exceptional circumstances will a candidate of thirty years or more be admitted.

He must also present certificates giving him *full* credit in the following subjects of Pass and Honour Matriculation:

PASS MATRICULATION

LATIN (Authors and Composition)

ENGLISH (Literature and Composition)

HISTORY (British and Ancient)

MATHEMATICS (Algebra and Geometry)

EXPERIMENTAL SCIENCE (Physics and Chemistry)

Any one of:

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition) *or*

ITALIAN (Authors and Composition)

HONOUR MATRICULATION

ENGLISH (Literature and Composition)

MATHEMATICS (Algebra, Geometry and Trigonometry)

One of:

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

NOTE. Physics or Chemistry or Biology of Honour Matriculation may be substituted for Trigonometry

A student who has fully completed the First Year in the Faculty of Arts of the University of Toronto, will be admitted to the First Year in the Faculty of Medicine, provided he has at least Pass Matriculation standing in Experimental Science.

FACULTY OF APPLIED SCIENCE AND ENGINEERING

A candidate for admission to the First Year in the Faculty of Applied Science and Engineering must produce satisfactory certificates of good character and of having completed the seventeenth year of his age on or before the first of October of the year in which he proposes to register.

He must also present certificates giving him credit in the following subjects of Pass and Honour Matriculation:

PASS MATRICULATION

ENGLISH (Literature and Composition)

HISTORY (British and Ancient)

MATHEMATICS (Algebra and Geometry)

Any three of:

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition) *or*

ITALIAN (Authors and Composition)

EXPERIMENTAL SCIENCE (Physics and Chemistry)

HONOUR MATRICULATION

ENGLISH (Literature and Composition)

MATHEMATICS (Algebra, Geometry and Trigonometry)

One of:

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition).

In selecting the options it is recommended that students take French, German and Experimental Science. In the Department of Architecture, French is required, in the Departments of Chemical Engineering and Mechanical Engineering it is desirable that students take German.

FACULTY OF FORESTRY

A candidate for admission to the First Year in the Faculty of Forestry must produce satisfactory certificates of good character, and of having completed the seventeenth year of his age on or before the first of October of the year in which he proposes to register.

He must also present certificates giving him credit in the following subjects of Pass and Honour Matriculation:

PASS MATRICULATION

ENGLISH (Literature and Composition)

HISTORY (British and Ancient)

MATHEMATICS (Algebra, Geometry and Trigonometry)

Any three of:

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition) *or*

ITALIAN (Authors and Composition)

EXPERIMENTAL SCIENCE (Physics and Chemistry) *or*

AGRICULTURE.

HONOUR MATRICULATION

ENGLISH (Literature and Composition)

MATHEMATICS (Algebra, Geometry and Trigonometry)

Any one of:

LATIN (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition).

In selecting the options it is recommended that students take French or German of Honour Matriculation.

FACULTY OF MUSIC

The subjects for Matriculation in Music are:

ENGLISH (Literature and Composition)

Any two of:

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition) *or*

ITALIAN (Authors and Composition).

A candidate for the degree of Bachelor of Music must complete his Matriculation prior to admission to the examination of the final year.

The pass standard is the same as that for Pass Matriculation.

DEPARTMENT OF DENTISTRY

A candidate for admission to the First Year in the Department of Dentistry (Royal College of Dental Surgeons) must produce satisfactory certificates of good character and of having completed the sixteenth year of his age on or before the first of October of the year in which he proposes to register.

He must also present certificates giving him *full* credit in the following subjects of Pass Matriculation:

LATIN (Authors and Composition)

ENGLISH (Literature and Composition)

HISTORY (British and Ancient)

MATHEMATICS (Algebra and Geometry)

EXPERIMENTAL SCIENCE (Physics and Chemistry)

Any one of:

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition) *or*

ITALIAN (Authors and Composition).

SPECIAL MATRICULATION CONDITIONS

The new regulations outlined on page 8 by which any candidate may receive credit in one or more papers at an examination have rendered unnecessary the special regulations for the industrial candidate. Consequently such candidate will *no longer* be required to send his statement of marks, together with a certificate of employment to the Secretary of the University Matriculation Board, in order to secure credit for the papers in which he has passed.

JUNE EXAMINATION

The examination for Pass and Honour Matriculation is held annually in June at centres in Ontario, and, if application is made to the Senate, the examination may, with the co-operation of the Department of Education, be held at centres outside Ontario.

Applications must be sent not later than the 1st of May, to the local Public School Inspector, or in the case of candidates intending to write at the University, to the Registrar.

Scholarship candidates must also send a special application by the same date to the Registrar, according to a form to be obtained from him.

The prescribed fee will be paid to the presiding officer by the candidate, when he presents himself for examination.

The Junior Matriculation examination will be held in June at such centres outside Ontario as may from time to time be authorized by the Senate. Applications for the establishment of such local centres must be made to the Registrar not later than the 15th of April in each year. Applications from candidates for this examination must be sent to the Registrar not later than the 1st of May.

The presiding examiner's fee, together with any other necessary expenses in connection with such an examination, must be met by the candidates at the centre, or by the authorities of the School or College on whose application it is held

SEPTEMBER EXAMINATION

1. The September Matriculation Examination is conducted by the Department of Education for the University Matriculation Board at the following centres:

(a) At the University of Toronto; Queen's University, Kingston; McMaster University, Toronto, Western University, London.

(b) At any other centre within the Province, provided the candidate or candidates apply before September 1st and undertake to pay the fees for presiding, etc., that may be required by the Department in addition to the regular examination fee.

(c) Upon the recommendation of this University at any centre elsewhere in Canada provided the candidate or candidates apply before August 25th, and undertake to pay all the local expenses including the Presiding Officer's allowances, express charges, and cost of supplies.

2. Forms of application and copies of the timetable may be obtained after July 1st on application to the Secretary, University Matriculation Board, Parliament Buildings, Toronto, to whom the applications should be forwarded, accompanied by the necessary fee.

3. On payment of the required fee, with \$1.00 additional, a candidate who has failed to make application by the date specified may be admitted to the examination at any centre, provided the accommodation is adequate and the number of question papers sufficient.

4. The subjects of the examination, the prescription of work, and the standard required shall be the same as for the June Pass and Honour Matriculation examinations of the same year.

5. The following are eligible to become candidates at this examination:

(a) Those who are applicants for the complete Matriculation examination.

(b) Those who are completing the Matriculation examination under the regulations in force in any previous year.

(c) Those who are applicants for Matriculation standing in certain papers.

EQUIVALENT EXAMINATIONS

A person who has passed the Matriculation examination of another University may be admitted *ad eundem statum* on such conditions as the Senate, on application, may prescribe.

The local examinations conducted by the University of Oxford and the University of Cambridge may be accepted *pro tanto*.

Certificates of having passed the subjects common to the Matriculation and other examination of any of the following examinations will be accepted *pro tanto*, provided always that the standards of these certificate as to subjects and percentages meet the requirements of this University.

PROVINCE OF ONTARIO

The examinations for Entrance to Normal Schools or for Entrance to Faculties of Education or examinations of the same standard under other names.

Candidates who have already passed Part I. of the pass Junior Matriculation, or of the Junior Leaving examination, will not be required to pass again in the subjects thereof.

PROVINCE OF QUEBEC

The Associate in Arts examination.

PROVINCE OF NEW BRUNSWICK

The examination for Superior and Grammar School Licenses.

PROVINCE OF NOVA SCOTIA

The Junior and Senior Leaving examinations (Grades XI. and XII.).

PROVINCE OF MANITOBA

Grade XI and Grade XII Examinations.

PROVINCE OF BRITISH COLUMBIA

The Intermediate and Senior Grade examination.

PROVINCE OF PRINCE EDWARD ISLAND

The First Class Teachers' License examination.

PROVINCE OF ALBERTA

Grade XI and Grade XII Examinations.

PROVINCE OF SASKATCHEWAN

The First and Second Class Teachers' examinations.
The Senior and Junior Matriculation examinations.

NEWFOUNDLAND

Associate in Arts Examinations

Candidates whose certificates do not cover all the subjects may complete matriculation by passing in the remaining subjects as prescribed by the University, or by passing in the subjects of similar standard as prescribed by the Education Department of the Province by which the certificate was issued.

The Senate will consider applications for the recognition of certificates other than those mentioned, as occasion may require.

FEEES

The Fees payable are as follows:—

For registration of certificates for other than University purposes.....	\$5.00
For registration of certificates other than those of Ontario, which exempt the applicant from the full Matriculation examination	5 00
For admission <i>ad eundem statum</i>	5.00

MATRICULATION SCHOLARSHIPS

FACULTY OF ARTS

Where there is no letter prefixed the scholarship is open to all competitors and is tenable in any one of the Colleges. In all other cases, the letter C. indicates University College; the letter V., Victoria College, the letter T., Trinity College, and the letter M., St. Michael's College; the student to whom one of these scholarships is awarded is required to enroll in each year of his course in the College to which the scholarship belongs.

PASS MATRICULATION SCHOLARSHIPS

Two Scholarships, known as "The First and Second Gibson Pass Matriculation Scholarships", of the value of \$120 and \$100 respectively with free tuition for one year, have been endowed by Sir John M. Gibson, of Hamilton, a graduate in Arts of 1863.

They will be awarded subject to the following conditions:

1. All candidates for these Scholarships must have been bona fide students of the Hamilton Collegiate Institute for at least the two years immediately preceding the award.

2. Each candidate must send a special application not later than May 1st to the Registrar of the University according to a form to be obtained from him, in this form he must state in writing that it is his intention to proceed to a degree in Arts in one of the Colleges of the University of Toronto.

3. The Scholarships shall be awarded annually upon the results of the June Pass Matriculation Examinations conducted by the Department of Education of Ontario in the year of the award and in the year immediately preceding the award. The subjects and standards shall be those prescribed for Pass Matriculation in the Faculty of Arts.

4. Candidates in each of the two years must present themselves for examination in the subjects for which they have been prepared in accordance with the arrangement of studies in the Hamilton Collegiate Institute.

5. Successful candidates must register in the First Year of the Pass Course in the Faculty of Arts during the session immediately following the award, unless special permission is granted by the Senate of the University to postpone such registration.

6. The cash payment of the Scholarships shall be made in the month of February in this session. Before payment can be made the scholar must present the prescribed certificate of attendance.

7. In the event that a scholar decides to attend the Hamilton Collegiate Institute for the session following the award, in order to pursue the course of study for Honour Matriculation, the payment of the Scholarship shall be deferred until the scholar registers in the Faculty of Arts at the University.

8. The holder of a Gibson Pass Matriculation Scholarship is not debarred from competing for an Honour Matriculation Scholarship in the University of Toronto.

HONOUR MATRICULATION SCHOLARSHIPS

REGULATIONS REGARDING THE UNIVERSITY SCHOLARSHIPS

All Scholarships shall be awarded upon the marks obtained at the examination for Honour Matriculation conducted by the Department of Education of Ontario, and the marks in each subject shall be assigned on the basis of 100 for each paper in the subject as defined on page 7.

Candidates for Matriculation Scholarships must send a special application not later than May 1st to the Registrar of the University, according to a form to be obtained from him.

This application shall be accompanied by certificates showing that the candidate has complete Pass Matriculation standing.

Each candidate shall at the Scholarship examination obtain credit in all the subjects of Honour Matriculation required for admission to the First Year of an Honour Course in the Faculty of Arts, as defined on page 9.

A candidate to whom a scholarship has been awarded at a Matriculation examination may not compete for a scholarship at a subsequent Matriculation examination. This regulation does not debar the holder of a Gibson Pass Matriculation Scholarship from competing for an Honour Matriculation Scholarship.

With the exception of the Prince of Wales Scholarship, no one shall be entitled to hold more than one University scholarship; but any one who, but for this provision, would have been entitled to a second scholarship will be published in the lists.

College Scholarships may be held with University Scholarships.

Every candidate for an Honour Matriculation scholarship shall, on application for examination, sign a declaration to the effect that he intends to proceed to a degree in Arts in this University.

A candidate competing for University scholarships must indicate at the time of application for examination the College in which he intends to enrol.

No scholarship will be awarded save on condition that the candidate becomes a matriculated student in actual attendance in this University, through enrolment in one of the colleges.

Free tuition awarded will be available on the following conditions:—For the First Year on the award of the scholarship; for any year after the first on proof that the claimant has passed his examination for the preceding year with a first class in an honour course.

In case in any year any scholarship be not taken, it will be allowable to award such scholarship, or some part thereof, to a candidate who has shown special excellence in the examination in some other group and has taken scholarship rank therein, but has failed to win a scholarship therein.

These regulations are subject to change by the Senate.

REGULATIONS RESPECTING UNIVERSITY COLLEGE SCHOLARSHIPS

Scholarships in University College are tenable with an Edward Blake Scholarship, always providing that the winner be in first class honours in Classics at Matriculation and becomes and continues to be a registered student in attendance upon lectures either in Classics or in English and History with the Classical option in University College. In the event of no eligible candidate being forthcoming at Matriculation for these scholarships, the scholarships will be held over until the year following

REGULATIONS RESPECTING VICTORIA COLLEGE SCHOLARSHIPS

Scholarships in Victoria College are tenable with an Edward Blake Scholarship, always providing that the winner be in first class honours at Matriculation and becomes and continues to be a registered student in attendance upon lectures in Victoria College.

REGULATIONS RESPECTING TRINITY COLLEGE SCHOLARSHIPS

The regulations governing University Scholarships are applicable to Trinity College Scholarships, *mutatis mutandis*, with the additional regulation that the holder is ordinarily required to reside in College, unless special permission to the contrary is given by the Executive Committee.

As a Trinity College Scholarship is generally held in conjunction with a University Scholarship, the holder in such case enjoys (a) free tuition, (b) the cash value of the University Scholarship, (c) the cash value of the Trinity College Scholarship. For example, if he holds the Wellington Scholarship in Classics and a First Edward Blake Scholarship in the same department, his University Scholarship entitles him to free tuition for four years, which is equivalent to \$160, and he receives in addition \$50 from the University, and \$120 from Trinity College, making a total value of \$330. A further advantage is that the winner is assured of accommodation in the Trinity College Residence (or in St. Hilda's in the case of women), as Scholars are given precedence over all other applicants when rooms are being assigned.

PROFICIENCY SCHOLARSHIPS

Candidates for Proficiency Scholarships in any one of the following groups must either

(a) Obtain fifty per cent. in each of the eleven papers prescribed in each Group, together with an average of seventy-five per cent., or

(b) Obtain First Class Honours in one of the four departments—Classics, Moderns, Mathematics, Science.

In case a candidate fails to secure fifty per cent. in a paper that does not form part of the Honour Matriculation requirements for admission to an Honour Course, he will not necessarily be disqualified from competing for a Proficiency Scholarship, but such mark will not be taken into consideration in the Scholarship award.

CLASSICS PROFICIENCY

GREEK, LATIN, ENGLISH, FRENCH, HISTORY, MATHEMATICS (Algebra and Geometry).

The First Edward Blake Scholarship, the gift of the late Hon. Edward Blake, formerly Chancellor of this University, of the value of \$100, with free tuition for four years, of a total value of \$260.

The Second Edward Blake Scholarship of the value of \$75, with free tuition for four years, of a total value of \$235.

The Third Edward Blake Scholarship of the value of \$50, with free tuition for four years, of a total value of \$210.

MODERNS PROFICIENCY

LATIN, ENGLISH, FRENCH, GERMAN, HISTORY, MATHEMATICS (Algebra and Geometry).

The First Edward Blake Scholarship, the gift of the late Hon. Edward Blake, formerly Chancellor of this University, of the value of \$100, with free tuition for four years, of a total value of \$260.

The Second Edward Blake Scholarship of the value of \$75, with free tuition for four years, of a total value of \$235.

The Third Edward Blake Scholarship of the value of \$50, with free tuition for four years, of a total value of \$210.

MATHEMATICS PROFICIENCY

LATIN, ENGLISH, FRENCH, MATHEMATICS (Algebra, Geometry, Trigonometry, Problems), PHYSICS.

The First Edward Blake Scholarship, the gift of the late Hon. Edward Blake, formerly Chancellor of this University, of the value of \$100, with free tuition for four years, of a total value of \$260.

The Second Edward Blake Scholarship of the value of \$75, with free tuition for four years, of the total value of \$235.

The Third Edward Blake Scholarship of the value of \$50, with free tuition for four years, of a total value of \$210.

SCIENCE PROFICIENCY

LATIN, FRENCH, MATHEMATICS (Algebra, Geometry, Trigonometry),
SCIENCE (Physics, Chemistry, Biology).

The First Edward Blake Scholarship, the gift of the late Hon. Edward Blake, formerly Chancellor of this University, of the value of \$100, with free tuition for four years, of a total value of \$260.

The Second Edward Blake Scholarship of the value of \$75, with free tuition for four years, of a total value of \$235.

The Third Edward Blake Scholarship of the value of \$50, with free tuition for four years, of a total value of \$210.

SPECIAL PROFICIENCY SCHOLARSHIPS

Candidates for these scholarships are required to obtain First Class Honours in at least one Department

The Prince of Wales Scholarship, the gift of the late King Edward VII., of the value of \$50, shall be awarded to the candidate standing highest in English and French who is also awarded one of the preceding scholarships.

C. The Gibson Scholarship, the gift of the Hon. Sir John M. Gibson, of the value of \$100, with free tuition for three years, of a total value of \$220 This scholarship shall be awarded to the candidate who, qualifying for one of the preceding scholarships and excluding the Prince of Wales Scholar, has the highest aggregate in the subjects of Latin, English, French, History, Algebra and Geometry.

T. The Upper Canada College-Trinity Scholarship, the gift of Upper Canada College Old Boys, who are alumni of Trinity College, of the value of \$100.

The successful candidate must obtain first class honours in at least one department. Pass papers rank at half the value of Honour papers. The sum of \$60 will be paid in equal terminal instalments in the first year, and \$40 in the second year.

T. The F. A. Bethune Scholarship, the gift of the trustees of the F. A. Bethune Memorial Fund, of the value of \$60.

This Scholarship will be awarded to the candidate from Trinity College School, Port Hope, who obtains the highest number of marks, being not less than two-thirds of the total, at the Honour Matriculation Examination, and becomes and continues a resident undergraduate of Trinity College, Toronto, for the whole of the year for which he holds the Scholarship.

M. The Silver Episcopal Jubilee Scholarship, the gift of the Toronto Subdivision of the Catholic Women's League of Canada, in honour of the Silver Jubilee of the Most Rev. Neil McNeil, Archbishop of Toronto, of the value of \$100.

This Scholarship open for competition only to women students residing in Toronto.

ENGLISH, HISTORY AND CLASSICS.

- T. The Bishop Strachan Scholarship, founded in memory of the first Bishop of Toronto, of the value of \$40 a year for two years.

ENGLISH, HISTORY, LATIN AND FRENCH.

- T. The Dickson Scholarship, the gift of the late William Dickson, Esq., of the value of \$60 a year for two years.

SCHOLARSHIPS IN ONE DEPARTMENT

Candidates for these scholarships must obtain first class honours in their departments.

CLASSICS—GREEK AND LATIN

The First Edward Blake Scholarship, the gift of the late Hon. Edward Blake, formerly Chancellor of this University, of the value of \$90, with free tuition for four years, of a total value of \$250.

The Second Edward Blake Scholarship of the value of \$60, with free tuition for four years, of a total value of \$220.

The First Mary Mulock Scholarship, the gift of the late Mrs. Mulock, of the value of \$60, with free tuition for three years, of a total value of \$180.

The Second Mary Mulock Scholarship, the gift of the late Mrs. Mulock, of the value of \$60, with free tuition for two years, of a total value of \$140.

- C. The McCaul Scholarship, the gift of G. A. H. Fraser, M.A., formerly Fellow in Classics 1889-91, Andrew Melville Stewart, M.A., LL.B., Honour graduate in Classics, 1891, and Principal Hutton, of the value of \$75, with free tuition for four years, of a total value of \$235.
- V. The Moses Henry Aikins Scholarships, the gift of the late Moses Henry Aikins, B.A., 1855, M.D., of the value of \$100 each, with free tuition for four years, of a total value of \$260 each.
- V. The Flavelle Scholarship, the gift of Sir J. W. Flavelle, BART., LL.D., of the value of \$60, with free tuition for three years, of a total value of \$180.
- V. The W. E. H. Massey Scholarship, the gift of the late W. E. H. Massey, Esq., of the value of \$50. with free tuition for two years, of a total value of \$130.

- T. The Wellington Scholarship, founded by the first Duke of Wellington, of the value of \$60 a year for two years.

GREEK.

The George R. R. Cockburn Scholarship, the gift of the late Mary Cockburn. Awarded to the successful candidate at the scholarship examination who ranks highest in First Class Honours in Greek.

This scholarship is tenable with any other University scholarship.

MODERNS—ENGLISH, GERMAN, FRENCH

The First Edward Blake Scholarship, the gift of the late Hon. Edward Blake, formerly Chancellor of this University, of the value of \$90, with free tuition for four years, of a total value of \$250.

The Second Edward Blake Scholarship of the value of \$60, with free tuition for four years, of a total value of \$220.

- V. The Moses Henry Aikins Scholarships, the gift of the late Moses Henry Aikins, B.A., 1855, M.D., of the value of \$100 each, with free tuition for four years, of a total value of \$260 each.
- T. The Dickson Scholarship, the gift of the late William Dickson, Esq., of the value of \$60 a year for two years.

MATHEMATICS—ALGEBRA, GEOMETRY, TRIGONOMETRY, PROBLEMS

The First Edward Blake Scholarship, the gift of the late Hon. Edward Blake, formerly Chancellor of this University, of the value of \$90, with free tuition for four years, of a total value of \$250.

The Second Edward Blake Scholarship of the value of \$60, with free tuition for four years, of a total value of \$220.

- V. The Moses Henry Aikins Scholarships, the gift of the late Moses Henry Aikins, B.A., 1855, M.D., of the value of \$100 each, with free tuition for four years, of a total value of \$260 each.
- T. The Wellington Scholarship, founded by the first Duke of Wellington, of the value of \$60 a year for two years.
- T. The Professor William Jones Scholarship, founded in memory of the late Reverend William Jones, M.A., D.C.L., by relatives and other personal friends. It is open only to students matriculating from Trinity College School, Port Hope.

SCIENCE—PHYSICS, CHEMISTRY, BIOLOGY

The First Edward Blake Scholarship, the gift of the late Hon Edward Blake, formerly Chancellor of this University, of the value of \$90, with free tuition for four years, of a total value of \$250.

The Second Edward Blake Scholarship of the value of \$60, with free tuition for four years, of a total value of \$220.

- V. The Moses Henry Aikins Scholarships, the gift of the late Moses Henry Aikins, B A , 1855, M D , of the value of \$100 each, with free tuition for four years, of a total value of \$260 each.
- T. The Burnside Scholarship, founded in memory of the late Dr. Burnside, of the value of \$40 a year for two years

SPECIAL SCHOLARSHIPS AND BURSARIES

THE JOHN MCCRAE SCHOLARSHIPS

Two Scholarships, each known as "The John McCrae Scholarship", and of the value of at least \$200 per year for four years, have been founded in memory of the late Lieutenant-Colonel John McCrae, B.A., M.D , of Montreal, one time Fellow in Biology of the University of Toronto physician, soldier, poet, who died in France in January, 1918.

The purpose of the Scholarships is to assist youths of ability, promise and approved academic standing, who desire to acquire the education represented by an Arts degree, but whose circumstances are such as to make the fulfilment of that desire impracticable without assistance. It is, moreover, desired that the Scholarships should be used to stimulate such ambition among the pupils of the Guelph Collegiate Institute, John McCrae's home and boyhood school from which he matriculated and entered the University of Toronto. The award will, therefore, be limited to Matriculants into the University of Toronto from the Guelph Collegiate Institute, or failing eligible and acceptable candidates therefrom in any year, from among other Canadian Matriculants. The award shall go to a male candidate if there be one eligible and acceptable—if not, the award may, in exceptional cases, be made to a female. A scholar may be chosen from matriculants of the year in which the award is made or the previous year. If the award is made to a matriculant of the previous year, and one year of the scholar's course for degree has already been passed, the award may be limited to the remaining three years of the course.

The selection of the scholars shall be made by a Committee composed of the President of the University, the Principal of Guelph Collegiate Institute, and a member or nominee of the family of the late John McCrae. If in any year, an acceptable candidate is not found, the award need not then be made, but may be postponed to the following year; but such postponement shall not affect the next succeeding Scholarship, which shall

be offered in the year in which in due course it would otherwise have been available.

Every successful candidate shall, as a condition of the award, sign a declaration of intention to proceed to a degree in Arts in the University of Toronto, and must attend lectures for the academic year immediately following the award, unless permission is granted by the Senate upon the recommendation of the Faculty for the postponement of attendance for a year. The candidate shall also sign a promise to repay to the University any sums paid to him on account of the Scholarship, if from any cause not beyond his control he shall fail to complete the full course in Arts leading to a degree. If, during the currency of the Scholarship, the candidate shall fail to maintain a satisfactory standard of efficiency in scholarship and good conduct, the award may, as to further payments, be cancelled by the selecting body after consultation with the University authorities.

One of these Scholarships will be offered in 1923 and in every second year thereafter. Candidates are required to make a special application on a form to be obtained from the Registrar. The award will be based upon the results of the Scholarship Matriculation Examination conducted by the Department of Education of Ontario.

THE WILLIAM HARDIE SCHOLARSHIP

The William Hardie Scholarship of the value of \$100, with free tuition for three years, of a total value of \$220, was founded in 1922 by friends in Ottawa and Perth in memory of William Hardie, B.A., an ex-pupil and Classical Master (from 1905 until his death in 1920) of Ottawa Collegiate Institute.

This Scholarship is to be awarded annually on the basis of the Scholarship Matriculation Examination of this University to the candidate of Ottawa Collegiate Institute who, having fulfilled all other conditions, ranks highest in First Class Honours in any two of the following subjects—Latin, Greek, English.

This Scholarship is not tenable with any other Honour Matriculation Scholarship awarded by the Senate of the University.

The award shall be made by the Senate of the University upon the recommendation of a Committee composed of the following: Dr. A. H. McDougall, Dr S. J. McLean and W. J. Sykes, Esq.

THE MOSES HENRY AIKINS SCHOLARSHIPS AND BURSARIES

- V. Nine Scholarships, each known as the "Moses Henry Aikins Scholarship," and of the value of \$100, with free tuition for four years, have been founded by the late Moses Henry Aikins, B.A., 1855, M.D.

Should any of these Scholarships not be awarded the College will grant Bursaries from this fund to any worthy Matriculant who is enrolled in Victoria College.

THE LEONARD McLAUGHLIN SCHOLARSHIP

- T. This scholarship has been endowed by Mr. and Mrs. Michael McLaughlin, of Toronto, in memory of their only son Leonard, who was at the time of his death, December 10th, 1899, an undergraduate of Trinity College. As he was a pupil at Upper Canada College from 1890 to 1896, only pupils of that school are eligible for the scholarship. This award will be made by a board consisting of the Provost of Trinity College with the Principal and the Classical Master of Upper Canada College to such candidate as, without written examinations, shows evidence of possessing good scholarship in Classics, as well as manliness, a sense of honour, and a strong moral character. Failing a suitable candidate in Classics, the Board may at its discretion select one in Modern Languages, though it is not under any obligation to make a selection in any given year.

Successful candidates must pursue a course of study in Classics or Modern Languages to the satisfaction of the Board. In case of necessity, to be by it determined, the Board may allow a postponement of the time of beginning the course or an interruption of the same.

The scholarship is worth \$500; \$125 will be paid to successive holders at the end of each Term in the First and Second Years.

THE COOPER EXHIBITION

- T. These two exhibitions, founded by the Rev. C. W. Cooper, of the value of \$100 each, are open to any matriculated student of Trinity College not holding a scholarship, with a preference to the sons of clergymen. The exhibitioners are nominated by the Most Reverend the Lord Bishop of Toronto.

CORPORATION BURSARIES

- T. The Corporation has provided that five Bursaries of a value of \$50 per annum be open every year for a period not exceeding three years. Any student who shall have passed the Matriculation examination, and shall have satisfied the Executive Committee that he cannot without the aid thus afforded, avail himself of the advantage of a University education, will be eligible for a bursary, provided that he is not the holder of a scholarship or exhibition. *Cæteris paribus* the sons of clergymen will be preferred.

Scholarships, exhibitions and bursaries will be forfeited if the holder fails to keep a term, or to pass any examination at the regular time.

DAUGHTERS OF THE EMPIRE BURSARY

The Imperial Order, Daughters of the Empire, has established a War Memorial Bursary in each province of the Dominion, of the value of

\$250 a year for four years, to be awarded to the candidate in either the Junior or the Honour Matriculation examinations who, in the judgment of the Committee, best meets the purpose in view in the foundation of the Bursary. The candidate must be the son or daughter of a killed or permanently disabled soldier, sailor or member of the Air Force. In case the holder of the Bursary for the Province of Ontario elects to study at the University of Toronto his fees will be remitted to the extent of \$25 a year provided the student has passed satisfactorily his examinations for the proceeding year.

Information respecting the Ontario Bursary may be obtained from Miss W. Gordon, 122 University Avenue, Kingston, Ont., from whom forms of application may be secured.

PRESCRIPTION OF COURSES

PASS MATRICULATION

GREEK

Translation into English of passages from the prescribed texts, with questions thereon.

Translation at sight of simple narrative passages similar to the Xenophon prescribed.

Questions on Greek accidence and on the common rules of Greek syntax to test the candidate's accuracy and comprehension in such matters as are needful for the intelligent reading of his texts.

The following are the prescribed texts:—

1923: Xenophon, Philpotts and Jerram, *Easy Selections from Xenophon*, chaps. 3, 4, 5; Homer, *Iliad*, I., 1-350.

Two papers will be set: (1) Prescribed texts; (2) translation at sight, accidence and syntax.

LATIN

Translation at sight of passages of average difficulty from Cæsar, upon which special stress will be laid.

Translation, with questions, from a prescribed portion of Virgil's *Æneid*.

Examination upon a short prescribed portion of Cæsar, to test the candidate's knowledge of Latin Syntax.

Questions on Latin accidence.

Translation into Latin of English sentences involving a knowledge of the vocabulary and constructions found in the Ontario High School Latin Book, pages 1-420, omitting the following sections under "Syntax and Prose Composition" except in so far as the contents of such sections are covered in the preceding parts of the Book: 503, 504, 530, 554, 560, 563 (c), 564, 565, 566, 572, 573, 579, 580, 587, 590, 604, 605, 623, 627, 630, 631, 632, 635, 637, 644, subsections (i), (ii) and (iii) of 650 (b), 652, 653, 655, 656, 657, 659, 660, 661, 662, 665, 666, 672, 673, 674.

The following are the texts prescribed:—

1923: Cæsar, *De Bello Gallico*, Book V., chaps. 1-23; Virgil, *Æneid*, Book I., vv. 1-510.

Two papers will be set: (1) Latin Authors, including Virgil, Cæsar and Sight Translation; (2) Latin Composition and Grammar.

ENGLISH

COMPOSITION: An essay on one of several themes set by the examiners. In order to pass in this subject, legible writing, correct spelling and punctuation, and idiomatic and grammatical construction of sentences are indispensable. The candidate should also give attention to the structure of the whole essay, the effective ordering of the thought, and the accurate employment of a good English vocabulary. About two pages of foolscap is suggested as the proper length for the essay; but quality, not quantity, will be mainly regarded.

One examination paper.

LITERATURE: Such questions only will be set as may serve to test the candidate's familiarity with, and intelligent and appreciative comprehension of, the prescribed texts. The candidate will be expected to have memorized the passages prescribed below. In addition to the questions on the prescribed selections, others will be set on a "sight passage" to test the candidate's ability to interpret literature for himself.

The candidate shall produce satisfactory proof, by the certificate of the principal of the school from which he comes or otherwise, that he has read carefully, during the preceding year, at least four suitable works in English literature (both prose and poetry) in addition to those prescribed below for examination.

One examination paper.

1923: Tennyson, *The Lady of Shalott*, *St. Agnes' Eve*, "Come not when I am dead," "Break, break, break," *In the Valley of Caunteretz*, *In Memoriam*, XXXI, XXXII, XXXVI, LXXV, LXXVI, C, CXI; Browning, "All service ranks the same with God," *The Italian in England*, *Cavalier Tunes*, *My Last Duchess*, *The Boy and the Angel*, *Home Thoughts from Abroad*, *Up at a Villa*, *The Guardian Angel*, *Prospice*; Matthew Arnold, *Sohrab and Rustum*; Shakespeare, *Macbeth*.

Passages for memorization: Tennyson, *The Lady of Shalott*, Part I, *St. Agnes' Eve*, "Break, break, break", *In the Valley of Caunteretz*. Browning, "All service ranks the same with God", *Home Thoughts from Abroad*, *Prospice*.

Shakespeare—*Macbeth*:—

Act I, Sc. 5, ll. 16-31. LADY M. Glamis thou art . . . crown'd
withal.

Act I, Sc. 7, ll. 1-28. MACB. If it were done . . . on the other.

Act II, Sc. 1, ll. 33-64. MACB. Is this a dagger . . . to hell.

Act III, Sc. 2, ll. 4-26. LADY M. Nought's had . . . him further.

Act III, Sc. 2, ll. 45-56. MACB. Be innocent . . . go with me.

Act V, Sc. 3, ll. 22-28. MACB. I have lived . . . dare not.

Act V, Sc. 3, ll. 39-45. MACB. Cure her . . . the heart?

Act V, Sc. 5, ll. 16-28. SEY. The Queen . . . signifying nothing.

1924: Wordsworth, Michael, Influence of Natural Objects, Nutting, Elegiac Stanzas, To the Rev. Dr. Wordsworth, To the Cuckoo, "Bright flower, whose home," and the following eight sonnets: "It is not to be thought of," "Dark and more dark the shades of evening fell", "O friend I know not", "Milton, thou shouldst", "Surprised by joy—impatient as the wind", "Hail twilight, sovereign of our peaceful hour", "I thought of Thee, my partner and my guide", "Such age, how beautiful"; Tennyson, The Epic and Morte d'Arthur, Ænone, The Brook, and the following sections of "In Memoriam"; XXVII, LXIV, LXXXIII, LXXXVI, CI, CXIV, CXV, CXVIII, CXXIII, Shakespeare, Merchant of Venice.

Passages for memorization: Wordsworth: "To the Cuckoo"; "It is not to be thought of"; "O friend, I know not", "Milton, thou shouldst"; "Hail twilight, sovereign of our peaceful hour"; "I thought of Thee, my partner and my guide".

Tennyson: "Morte d'Arthur, ll. 246-255; Ænone, ll. 1-15, ll. 144-150. The lyric stanzas in the "Brook"; "In Memoriam": LXIV, LXXXIII, LXXXVI, CI, CXV, CXVIII.

Shakespeare—The Merchant of Venice:—

Act I, Sc. 1, ll. 79- 99. Let me play . . . their brothers fools.

Act II, Sc. 9, ll. 36- 49. Who chooseth me . . . to be new varnished.

Act IV, Sc. 1, ll. 184-205. The quality of mercy . . . the deeds of mercy.

Act V, Sc. 1, ll. 54- 65. How sweet the moonlight . . . cannot hear it.

Act V, Sc. 1, ll. 102-108. The crow doth sing . . . true proportion.

*FRENCH

The candidate's knowledge of French will be tested by: (1) simple questions on grammar; (2) the translation of simple passages from English into French; (3) translation at sight of easy passages from modern French, and (4) an examination on the following texts:—

The texts contained in the New High School French Reader.

1923: Labiche, le Voyage de M. Perrichon; Theuriet, l'Abbé Daniel (Blackie's Longer French Texts).

Two papers will be set: (1) Prescribed texts and translation at sight; questions on grammar; (2) the translation of English into French.

*GERMAN

The candidate's knowledge of German will be tested by: (1) simple questions on grammar; (2) the translation of simple passages from English into German; (3) translation at sight of easy passages from modern German; and (4) an examination on the following texts:—

The texts contained in the High School German Reader with the exception of Von Fallensleben, Deutschland über Alles.

*When the edition is not specified, any *unabridged* edition may be used

1923: Hauff, *Das kalte Herz*; *Wilhelmi, Einer musz heiraten*.

Two papers will be set: (1) Prescribed texts and translation at sight; questions on grammar; (2) the translation of English into German.

SPANISH

The candidates knowledge of Spanish will be tested by: (1) questions on grammar, (2) the translation of sentences and connected narrative from English into Spanish, (3) composition in Spanish, (4) translation at sight from Spanish, (5) an examination on the following text.—

1923: Fuentes and François, *A Trip to Latin America* (H. Holt & Co.).

Two papers will be set: (1) Prescribed text and translation at sight, questions on grammar; (2) the translation of English into Spanish and composition.

ITALIAN

The Candidate's knowledge of Italian will be tested by: (1) questions on grammar; (2) the translation of sentences and connected narrative from English into Italian; (3) translation at sight from Italian; (4) an examination on the following text.—

1923 Bowen, *Italian Reader* (Heath & Co.), pages 1-66.

Two papers will be set: (1) Prescribed text and translation at sight; (2) questions on grammar and translation of sentences illustrating the grammar.

HISTORY

BRITISH HISTORY.—Great Britain from 1688 to 1920. The geography relating to the history prescribed. One examination paper.

NOTE.—The following sections of the course given below are obligatory, viz., 1, 4, 5, 6, and 15. The following options are allowed:

(a) Section 2 and section 3; or section 13 and section 14.

(b) Sections 7, 8 and 9, or sections 10, 11, and 12.

1. Political development 1688 to date:

The Bill of Rights; the significance of the Revolution of 1688.

Origin and development of parties and party government.

Biographical sketches of the great Prime Ministers: Walpole; Pitt, Jr.; Grey; Russell; Melbourne; Peel; Palmerston; Gladstone; Disraeli; Salisbury; Balfour; Asquith, Lloyd George.

Extension of the franchise: The Reform Bills of 1832, 1867, 1884, 1918, etc.

Restriction of the powers of the House of Lords.

2. The American Revolution.

3. The French Revolution; the war with France, 1793-1802; the struggle with Napoleon.

- 4 The Industrial Revolution.
- 5 The development of the British Empire in territory and in government.
6. The social life of the people
 - (a) Phases agriculture, commerce, industry, transportation, class distinctions, amusements
 - (b) Legislation, *e.g.*, Factory Acts.
7. Literature
8. Education in the 19th and 20th centuries.
9. Religion
- 10 Ireland.
11. External relations, including brief study of nations concerned.
12. The British Navy The place of sea-power in the development and maintenance of the British Empire.
- 13 The Great War, especially the part played by the British Empire.
- 14 The League of Nations.
- 15 Civics

Government, with special emphasis on provincial, federal, and imperial government.

A study of the following aspects of the production and distribution of wealth

 - (a) The dependence of the citizen upon others for the wealth he uses
 - (b) Co-operation and division of labour.
 - (c) The effects of industrial development upon community life.
 - (d) The distribution of wealth in wages, salaries, profits, dividends, interest, and rent.
 - (e) Saving
 - (f) What the government does to regulate the production and distribution of wealth.
 - (g) Voluntary organizations aiding or regulating industry.

BOOKS OF REFERENCE

The following books will be found useful for supplementary reading on the topics of the course, and should be placed in every High School library: Mowat, A new History of Great Britain, Parts II and II, Oxford Press, Gardiner, A Student's History of England, Longmans (or Part III, which deals with the period 1689-1919); McCarthy, England in the Nineteenth Century, 2 vols., Putnam, Trevelyan, British History in the Nineteenth Century, Longmans, Bell's English History Source Books, Vols. VII-XI, 1714-1887, G. Bell & Sons; Kendall, Source Book of English History, Macmillan; Piers Plowman Social and Economic Histories, Vols. V, VI, VII, George Philip & Son, London; Cheney, Industrial and Social History of England, Macmillan; Hamilton, How the Fight was Won, Ontario Department of Education; Everyman's Literary and Historical Atlas of Europe, Dent; Philip's Junior Historical Atlas, George Philip & Son.

ANCIENT HISTORY.—General outlines of the History of Greece to the death of Alexander and of the history of Rome to the death of Augustus, with a brief outline of the art, literature, philosophy, and social life of the Greeks and Romans. The geography relating to the history prescribed. One examination paper.

GREECE—The Early Greek World: effects of geographical features; earlier civilizations, first period of colonization, Homeric age; story of Troy, the City State, life of the people, contributions to later Greek civilization.

Period of Development: colonial expansion; rise of Sparta; classes of society; government: aristocratic constitution; myth of Lycurgus, strength and weakness, rise of Athens to Democracy, abolition of monarchy; the aristocracy (general statement only); Draco, Solon; the tyranny: Pisistratus, the democracy (general statement only); Cleisthenes; Intellectual awakening. The struggle for freedom: war with Persia, conquest of Asiatic Greece; Marathon, Themistocles, the navy; invasion under Xerxes: Thermopylae; Salamis, historic importance of Marathon; results of struggle on Athens.

The Athenian Empire: confederacy of Delos; government under Pericles; the Golden age; social conditions of people, strength and weakness of Athenian democracy, our debt to Athens.

Discord and Decline: the Peloponnesian Wars: (no details regarding battles). Causes: direct; indirect. First stage: land power versus sea power; death of Pericles. Second stage: the Sicilian expedition; Alcibiades. Downfall of Athens: Lysander; terms of peace. Leadership of Sparta (in brief outline): expedition of Cyrus; retreat of the "Ten Thousand"; Xenophon; effects of Spartan violence, Liberation of Thebes; Pelopidas, battle of Leuctra; significance. Leadership of Thebes: Epaminondas; battle of Mantinea. Rise of Macedon: the country and people. Philip: Thebes and Philip; Philip and his army; war with Athens: Chaeromea; Demosthenes. Greece under Philip. Alexander: education; conquests: battle of Issus; founding of Alexandria; battle of Arbela; organization of Empire; death and character; results of his conquests. Contribution of Hellas to civilization: art; literature; philosophy.

ROME.—Early Italian world: effects of geographical position; physical features of Italy; tribes of Italy; legendary beginning of Rome (without details of kings). Rome under the kings: family life; religion; social classes; government. The early Republic: the aristocratic Republic; struggle with the Plebs. The charters of Liberty (without details): the twelve tables; Licinian laws; Hortensian laws; the Roman democracy (general statement only). Early struggle for existence: stories of Cincinnatus and Camillus. Conquest of Italy: Latin and Samnite wars (no details); causes of Rome's success. Italy organized under Rome (general statement only): social conditions. The Punic wars: the First Punic war. The Carthaginian Empire: comparison with Rome. Struggle for Sicily: outline of events; results. The Second Punic war: the Carthaginians in Spain.

the invasion of Italy; Hannibal's victories in outline, conquest of Spain by Scipio, battle of Zama; results of the war. The Third Punic war: destruction of Carthage, Carthage a Roman province. The conquest of the East. the struggle with Macedonia (general statement only), destruction of Corinth; Greece a Roman province, war with Syria, effects of conquests, on art and literature; on customs and religion; on social conditions, on political organization. Growth of Plutocracy evil effects; Cato. Period of Civil Strife—Military Rule causes of strife (see previous chapter); the reforms of the Gracchi. Marius the rise of Marius, Jugurtha; the social war. Sulla the Mithridatic wars, the Sullan constitution, first Civil war, senate made supreme. Rise of Pompey: Sertorius; Spartacus; Pompey as consul, conquests in the east, conspiracy of Catiline, Cicero; the first Triumvirate. Rise of Caesar conquests in Gaul, second Civil War; cause; defeat of Pompey, Caesar's government and death, Caesar's reforms. Founding of the Empire. Caesar's heir; the second Triumvirate; defeat of Antony, government under Augustus, the Augustus policy: extent of the empire. The Augustine Age. literature, public works, birth of Christ.

BOOKS OF REFERENCE

The following books will be found useful for supplementary reading on the topics of the course, and should be placed in every High School library: Breasted, *Ancient Times*, Ginn & Co.; Botsford, *A History of Greece*, Macmillan, Pelham, *Outlines of Roman History*, Putnam, Havell, *Republican Rome*, Ballantyne Press, Cotterill, *Ancient Greece*, Ballantyne Press, Botsford, *A Source Book of Ancient History*, Macmillan; Munro, *A Source Book of Roman History*, Heath & Co., Fling, *A Source Book of Greek History*, Heath & Co.; Translations of the histories of Herodotus, Thucydides, Polybus and Livy; Ginn's *Classical Atlas*, Ginn & Co.

MATHEMATICS

ALGEBRA.—Elementary rules; factoring; highest common measure; lowest common multiple; fractions; simple equations of one, two and three unknown quantities; extraction of roots, more advanced factoring; simple graphs; simple ratio and proportion; indices; surds; quadratics of one and two unknown quantities; theory of quadratics.

One examination paper.

GEOMETRY.—A.—CONSTRUCTIONS.

To construct a triangle with sides of given lengths.

To construct an angle equal to a given rectilineal angle.

To bisect a given angle.

To bisect a given straight line.

To draw a straight line perpendicular to a given straight line from a given point in it.

To draw a straight line perpendicular to a given straight line from a given point not in the line.

Locus of a point equidistant from two given straight lines

Locus of a point equidistant from two given points.

To draw a straight line parallel to another, through a given point.

To divide a given straight line into any number of equal parts

To describe a parallelogram equal to a given triangle, and having an angle equal to a given angle.

To describe a parallelogram equal to a given rectilineal figure, and having an angle equal to a given angle.

On a given straight line to describe a parallelogram equal to a given triangle, and having an angle equal to a given angle.

To find the centre of a given circle.

From a given point to draw a tangent to a given circle.

On a given straight line to construct a segment of a circle containing an angle equal to a given angle.

From a given circle to cut off a segment containing an angle equal to a given angle.

In a circle to inscribe a triangle equiangular to a given triangle.

To find locus of centres of circles touching two given lines.

To inscribe a circle in a given triangle.

To describe a circle touching three given straight lines.

To describe a circle about a given triangle.

About a given circle to describe a triangle equiangular to a given triangle.

To divide a given straight line similarly to another given divided straight line.

To find the fourth proportional to three given straight lines.

To describe a polygon similar to a given polygon, and with the corresponding sides in a given ratio.

To find the mean proportional between two given straight lines.

To construct a polygon similar to a given polygon, and such that their areas are in a given ratio.

To describe a polygon of a given shape and size.

B.—THEOREMS.

The sum of the angles of any triangle is equal to two right angles.

The angles at the base of an isosceles triangle are equal, with converse.

If the three sides of one triangle be equal, respectively, to the three sides of another, the triangles are equal in all respects.

If two sides and the included angle of one triangle be equal to two sides and the included angle of another triangle, the triangles are equal in all respects.

If two angles and one side of a triangle be equal to two angles and the corresponding side of another, the triangles are equal in all respects.

If two sides and an angle opposite one of these sides be equal, respec-

tively, in two triangles, the angles opposite the other pair of equal sides are either equal or supplemental.

The sum of the exterior angles of a polygon is four right angles.

The greater side of any triangle has the greater angle opposite it.

The greater angle of any triangle has the greater side opposite it.

If two sides of one triangle be equal respectively to two sides of another, that with the greater contained angle has the greater base, with converse.

If a transversal fall on two parallel lines, prove the relations between angles formed, with converse

Lines which join equal and parallel straight lines towards the same parts are themselves equal and parallel.

The opposite sides and angles of a parallelogram are equal and each diagonal bisects it.

Parallelograms on the same base, or on equal bases, and between the same parallels are equal.

Triangles on the same base, or on equal bases, and between the same parallels are equal.

Triangles equal in area, and on the same base, are between the same parallels.

If a parallelogram and a triangle be on the same base, and between the same parallels, the parallelogram is double the triangle.

Find expressions for area of a parallelogram, and the area of a triangle.

The complements of the parallelograms about the diagonal of any parallelogram are equal.

The square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the sides.

If a straight line be divided into any two parts, the sum of the squares on the parts, together with twice the rectangle contained by the parts, is equal to the square on the whole line.

The square on a side of any triangle is equal to the sum of the squares on the two other sides + twice the rectangle contained by either of these sides and the projection of the other side on it.

If more than two equal straight lines can be drawn from the circumference of a circle to a point within it, that point is the centre.

The diameter is the greatest chord in a circle, and a chord nearer the centre is greater than one more remote. Also the greater chord is nearer the centre than the less.

The angle at the centre of a circle is double the angle at the circumference on the same arc.

The angles in the same segment of a circle are equal, with converse.

The opposite angles of a quadrilateral inscribed in a circle are together equal to two right angles, with converse.

The angle in a semicircle is a right angle; in a segment greater than a semicircle less than a right angle; in a segment less than a semicircle greater than a right angle.

A tangent to a circle is perpendicular to the radius at the point of contact, only one tangent can be drawn at a given point on the circumference, the perpendicular to the tangent at the point of contact passes through the centre; the perpendicular from centre on tangent passes through the point of contact.

If two circles touch, the line joining the centres passes through the point of contact.

The angles which a chord drawn from the point of contact makes with the tangent, are equal to the angles in the alternate segments.

The rectangles under the segments of intersecting chords are equal.

If OAB and OC be two straight lines, and $OA \cdot OB = OC^2$, OC is a tangent to the circle through A , B , and C .

Triangles of the same altitude are as their bases.

A straight line parallel to the base of a triangle divides the sides proportionally, with converse.

If the vertical angle of a triangle be bisected, the bisector divides the base into segments that are as the sides, with converse.

The analogous proposition when the exterior angle at the vertex is bisected, with converse.

If two triangles are equiangular, the sides are proportional.

If the sides of two triangles are proportional, the triangles are equiangular.

If the sides of two triangles about equal angles are proportional, the triangles are equiangular.

If two triangles have an angle in each equal, and the sides about two other angles proportional, the remaining angles are equal or supplementary.

Similar triangles are as the squares on corresponding sides.

The perpendicular from the right angle of a right-angled triangle on the hypotenuse divides the triangle into two triangles which are similar to the original triangle.

In equal circles angles, whether at the centres or circumferences, are proportional to the arcs on which they stand.

The areas of two similar polygons are as the squares on corresponding sides.

If three straight lines be proportional, the first is to the third as the figure on the first to a similar figure on the second.

Questions and easy deductions on the preceding constructions and theorems.

It is recommended that the study of formal demonstrative Geometry be preceded by a course in Practical Geometry, extending over not more than a year, and embracing the following:—

Definitions: fundamental geometric conceptions and principles; use of simple instruments, as compasses, protractor, graduated rule, etc.; measurement of lines and angles, and construction of lines and angles of given numerical magnitude; accurate construction of figures; some leading pro-

positions in plane geometry reached by induction as a result of accurate construction of figures, deduction also employed as principles are reached and assured. At the examination, questions may be given in Practical Geometry, the constructions being such as naturally spring from the prescribed course. Candidates must provide themselves with a graduated ruler, compasses, set-square and protractor.

In the formal deductive Geometry modifications of Euclid's treatment of the subject will be allowed, though not required, as follows:—

The employment of the "hypothetical construction".

The free employment of the method of superposition including the rotation of figures about an axis, or about a point in a plane.

A modification of Euclid's parallel postulate.

A treatment of ratio and proportion restricted to the case in which the compared magnitudes are commensurable.

One examination paper.

EXPERIMENTAL SCIENCE

CHEMISTRY—An experimental study of the following elements and their more important compounds: hydrogen, oxygen, sulphur, sodium, potassium, nitrogen, chlorine, bromine, iodine, carbon, calcium. The course of work should be arranged so as to give the pupils a knowledge of the following: Mixtures, solutions, compounds, and elements, and their various properties and reactions; acids, bases, and salts. Fundamental laws and principles, as: conservation of mass, definite proportions, multiple proportions, valency, proportions by volume in which gases react. The quantitative meaning and use of chemical symbols, formulae and equations. Chemical nomenclature. Simple quantitative experiments and problems. The application of chemistry to the industries, illustrated by an account of the commercial manufacture and use of some of the more important substances included in this course.

PHYSICS.—A course defined as follows, the topics to be presented experimentally with mathematical applications simple and direct in character.

SOUND.—Vibratory motion illustrated with pendulums, rods, strings, membranes, and plates.

Types of wave motion illustrated by water waves, waves in a cord, and waves in a coiled spring.

Production, propagation, velocity, and reflection of sound waves; wave lengths.

Intensity, pitch.

Laws of vibration of strings; vibration of air in organ pipes; nodes and loops in vibrating strings, and in vibrating air columns, harmonies, quality, manometric flames.

Interference phenomena; beats.

Resonance.

HEAT.—Sources of heat: Transformation of other forms of energy into heat energy.

Expansion due to heat: Anomalous expansion of water and its importance in nature, expansion of gases, Charles' Law.

Temperature and thermometers: Construction and graduation of Centigrade and Fahrenheit thermometers, measurement of temperature on absolute scale.

Quantity of heat: Temperature as contrasted with quantity of heat; heat units; specific heat, determination of the specific heat of a solid and of a liquid.

Fusion: Determination of melting point of ice; heat changes in solution; determination of heat of fusion of ice; the influence of salt in solution on the freezing point.

Vaporization: Determination of heat of vaporization of water; dependence of boiling point on pressure and on the presence of salts in solution; evaporation; practical applications of cooling by vaporization, ice machine.

Transference of heat: Conduction and convection, as illustrated in systems of heating by hot water and by steam; ventilation; radiation; radiant energy; effect of temperature and nature of surface; emission and absorption, selective absorption.

The transformation of heat energy into the energy of mechanical motion as exemplified in the steam engine and in the gas engine.

Heat in connection with meteorology; clouds; rain; winds; dew; frost, dew point; hygrometers (Regnault's and the wet and dry bulb hygrometer).

Nature of heat: Kinetic theory.

LIGHT.—Propagation: Wave theory of light; rectilinear propagation, image through a pin-hole; photometry, shadow and grease-spot photometers.

Reflection: Laws of reflection; images in plane mirrors; images in spherical mirrors, drawing image of object in any position.

Refraction: Laws of refraction; index of refraction, its measurement, and its relation to the velocities of light in media; total reflection.

Lenses: Converging and diverging; determination of focal length; conjugate foci; drawing of images produced by lenses; vision through a lens, relation of the size of the image to the size of the object.

Optical instruments: Simple microscope; camera; projection lantern.

Colour: Decomposition and recomposition of white light; spectrum; complementary colours, rainbow.

MAGNETISM AND ELECTRICITY—Magnetism: Laws of magnetic attraction and repulsion, magnetic field, magnetic lines of force; magnetism by induction; magnetization, molecular theory of magnetization; magnetic permeability, terrestrial magnetism, mariner's compass, inclination and declination of the magnetic needle.

Electricity at rest: Two kinds of electrification; conductors and non-conductors; gold-leaf electroscope; induced electrification, electricity at

points and at surfaces; lightning rods; the Leyden jar; simple notions of electrical potential.

Electric current: Production of electric current by voltaic cells; electromotive force of a voltaic cell; detection of the electric current; polarization and local action; simple notions of the relation of electromotive force, current strength, and resistance, names of units; Leclanche cell, dry cell, Daniell cell.

Effects of the electric current: Electrolysis, theory of electrolysis, electroplating, electrotyping, storage cell, laws of electrolysis, measurement of current strength by electrolysis; magnetic effects, electromagnet, relation between the direction of the current and the polarity of an electromagnet, the electric telegraph, the electric bell, the galvanometer, the D.C. motor; heating effects of the current, practical applications, electric stoves, electric irons, electric heaters, electric welding, incandescent and arc lamps.

Induced currents: Production of induced currents; laws of induced currents; Lenz's Law; the transformer; the induction coil; the telephone; a simple type of the A.C. and of the D.C. dynamo. Reasons for the use of the A.C. current; differences in the uses of the A.C. and D.C. current; distribution of electricity as illustrated by the Hydro-Electric System.

Electric measurements: Units of current strength, resistance, and electromotive force; Ohm's Law; measurement of current strength, the ammeter; measurement of electromotive force, the voltmeter; measurement of resistance, the Wheatstone Bridge.

Special forms of radiation: Electric waves, wireless telegraphy.

AGRICULTURE

PART I

AGRICULTURAL PHYSICS.

SOIL.—Classification and identification of samples of soil by the "beaker" method into clay, loam, clay loam, sandy loam and sand; comparison of two soils by the aid of a compound microscope; identification and study of soil in the fields; experiments to show the physical effects of lime on heavy and on light soil; influence of air, cultivation and drainage on the action of lime.

Tillage: Uses of plow, cultivator, scuffer, harrow and roller; experiments to show the use of mulches, and the action of frost on heavy soil.

Drainage: Methods and value; calculation of cost of tile drainage of a given area.

SURVEYING.—Use of instruments (including level and chain) for taking levels, running lines; calculation of areas.

FARM MECHANICS.—Care of tools and farm implements; experiments to show warping and splitting of wood on exposure to the weather; practice

in sharpening such tools as chisel, knife and scissors; the use of levers and pulleys in machinery; principle of the internal-combustion engine.

ELECTRICITY.—Electricity at Rest: Two kinds of electrification, conductors and non-conductors; gold leaf electroscope; induced electrification; electricity at points and surfaces; the Leyden jar; lightning-rods.

Current Electricity: Principle of voltaic cells; use of dry cells galvanometer; detection of the current; simple notions of electro-motive force, current strength and resistance including names of units; electro-magnet; relation between the direction of the current and the polarity of a magnet; telegraph, electric bell, electric appliances—irons, stoves, welders, lamps; production of induced currents, laws of induced currents; the induction coil and transformer

AGRICULTURAL CHEMISTRY

GENERAL—A brief experimental study of the following elements: carbon, oxygen, hydrogen, nitrogen, phosphorus, sulphur, potassium, calcium, and the compounds of these elements used by green plants; chemical symbols, formulae and equations, chemical nomenclature.

Note.—It is intended that the student through experimental study shall become familiar with the above mentioned elements and their compounds, which have direct bearing upon agriculture.

SOILS.—Experiments to show how the insoluble compounds of the soil containing calcium and phosphorus may be made soluble (*e.g.*, the action of carbon dioxide and water on calcium carbonates and phosphates); a study of the amount of plant food constituents in soil, the necessity of an abundance of humus and lime (compounds of calcium); nitrification; means of getting nitrogen into the soil, special influence of nitrogen, phosphorus, and potassium compounds on the growth of plants, influence of period of growth, range of root, and ability of plants to assimilate food, on the problem of the manuring for different crops.

BARNYARD MANURE AND FERTILIZERS.—Composition, care and treatment of barnyard manure; commercial sources of nitrogen, phosphorus and potassium used to supplement barnyard manure; experiments to prove the presence of and to show the relative solubility of the three plantfood elements in these materials and why certain of the materials should not be mixed; calculation of the percentage of available plantfood in different mixtures of fertilizer materials; explanations of the commercial terms "phosphoric acid" and "potash". The chief provisions of the Fertilizer Act.

INSECTICIDES AND FUNGICIDES.—An experimental study of arsenate of lead, arsenate of lime, Paris green, lime-sulphur, Bordeaux mixture, and orchard "dusts"; why some insecticides and fungicides cannot be used in combination.

PART II

BOTANY.—Calculation of the percentage of foul seed in three or four samples of clover (or alfalfa) and timothy; use of compound microscope in examining spores and mycellia, recognition, from specimens, of rusts, smuts, white rust of crucifers, brown rot of stone fruits, mildew of cherry or lilac and anthracnose of bean. Chief provisions of Seeds Control Act and Noxious Weeds Act.

ENTOMOLOGY.—Identification, nature of injury, life history and methods of control of any six of the most common harmful insects of the district, e.g., white grub, wire worm, plum curculio, codling moth, San José scale, oyster shell scale, cabbage maggot, cabbage worm, Hessian fly, European corn borer, potato beetle, and clothes moth.

POULTRY.—Practical operation of the incubator—ventilation, moisture, candling eggs, variation in size of air chamber, blood clots, development of the embryo by examining eggs broken open every one or two days during the period of incubation; use of water-glass in preserving eggs; poultry products and marketing.

DAIRYING.—Principles and uses of the Babcock machine and the lactometer; testing cream and skim milk (or whey) for fat, determining whether milk has been watered by use of the formula— $(L.R. \text{ at } 60^{\circ} \text{ plus } \% \text{ of fat}) \div 4 = \% \text{ S.N.F.}$; food value of milk and its products; principle and use of the milk separator, making butter with a laboratory churn; use of starters.

FIELD CROPS.—Different types of farming; crop distribution over Ontario; meaning and importance of crop rotation; influence of the keeping of live stock on the kind of rotation; germination tests of seed, e.g., oats, turnips, corn, clover; laboratory work in seed judging and seed selection; meaning and merits of pasture crops, silage crops and soiling crops; the yield and quality of crop as influenced by the time of sowing; calculation of the relative value of certain crops as "money" crops.

ANIMAL HUSBANDRY.—History and characteristics of the chief breeds of horses, cattle, sheep, swine; value and importance of live stock; a survey of the breeds found in the locality; meaning of pedigree stock and grade stock; disadvantage of keeping scrub stock; visit to a local farm to study the stock kept there.

Or

HORTICULTURE.—Orchard management—spraying, pruning, grafting, cultivating; cover crops; packing and marketing apples; methods of producing early vegetables; practice in seeding, transplanting, cultivating mulching; fruit survey for at least two kinds of fruit.

HONOUR MATRICULATION

GREEK

Translation into English of passages from the prescribed texts, with questions thereon.

Translation at sight of prose passages of average difficulty from Xenophon's historical works.

Translation into Greek of sentences (based upon Xenophon's vocabulary) to test the candidate's scholarship in matters of accidence, syntax and phraseology.

The following are the prescribed texts:—

1923. Xenophon, *Hellenica* (Philpotts' Selections, sections, I. and II.), Homer, *Iliad* I, 1-350; III, 121-244; VI, 66-118, and 237 to the end; *Odyssey* VI., Herodotus, *Salamis* (Edwards).

Two papers will be set: (1) prescribed texts; (2) translation at sight and Greek prose composition.

LATIN

Translation into English of passages from prescribed texts, with grammatical questions on these passages and such other questions as arise naturally from the context.

Translation at sight of a passage of average difficulty from Caesar.

Translation into Latin of English sentences to illustrate Latin syntax, and of a continuous passage of English narrative similar to Caesar.

The following are the prescribed texts:—

1923. Caesar, *De Bello Gallico*, Book V., Chaps. 24-58, Cicero. In *Catilinam* I, Horace, *Odes* as follows: Book I., 1, 2, 4, 5, 9, 10, 14, 22, 24, 31, 38, Book II., 3, 10, 14, 15, 16, 17, 18, 20; Book III., 1, 2, 8, 9, 13, 18, 21, 23, 29, 30, Book IV., 3, 5, 7, 12, 15.

Two examination papers

(1) Latin Prose Composition and Caesar.

(2) Cicero, Horace and Sight Translation.

ENGLISH

COMPOSITION: An essay on one of several themes set by the examiners.

One examination paper.

LITERATURE: The candidate will be expected to have memorized some of the finest passages. Besides questions to test the candidate's familiarity with, and comprehension of, the following selections, questions may also be set to determine within reasonable limits his power of appreciating literary art.

The candidate shall produce satisfactory proof by the certificate of the principal of the school from which he comes or otherwise that he has read

carefully, during the preceding year, at least four suitable works in English literature (both prose and poetry) in addition to those prescribed below for examination.

1923: Tennyson, *The Lady of Shalott*, *St. Agnes' Eve*, "Come not when I am dead," "Break, break, break," *In the Valley of Caunteretz*, *In Memoriam*, XXXI, XXXII, XXXVI, LXXV, LXXVI, C, CXI, Browning, *My Last Duchess*, "All service ranks the same with God," *The Italian in England*, *Cavalier Tunes*, *The Boy and the Angel*, *Home Thoughts from Abroad*, *Up at a Villa*, *The Guardian Angel*, *Prospice*; Matthew Arnold, *Sohrab and Rustum*; Shakespeare, *Macbeth*, *As You Like It*.

Passages for memorization:—

Tennyson: *St. Agnes' Eve*, "Break, break, break"; *In the Valley of Caunteretz*. Browning: "All service ranks the same with God"; *Home Thoughts from Abroad*; *Prospice*.

Shakespeare—*Macbeth*:—

Act I, Sc. 5, ll. 16-31. LADY M. Glamis thou art . . . crown'd withal.

Act I, Sc. 7, ll. 1-28. MACB. If it were done . . . on the other.

Act II, Sc. 1, ll. 33-64. MACB. Is this a dagger . . . to hell.

Act III, Sc. 2, ll. 4-26. LADY M. Nought's had . . . him further.

Act III, Sc. 2, ll. 45-56. MACB. Be innocent . . . go with me.

Act V, Sc. 3, ll. 22-28. MACB. I have lived . . . dare not.

Act V, Sc. 3, ll. 39-45. MACB. Cure her . . . the heart?

Act V, Sc. 5, ll. 16-28. SEY. The Queen . . . signifying nothing.

Shakespeare—*As You Like It*:—

Act II, Sc. 1, ll. 1-18. DUKE S. Now, my co-mates . . . change it.

Act II, Sc. 5. The Songs.

Act II, Sc. 7, ll. 139-166. JAQ. All the world's . . . sans everything.

Act II, Sc. 7, ll. 174-190. AMIENS. The Song.

1924: Wordsworth, *Michael*, *Influence of Natural Objects*, *Nutting Elegiac Stanzas*, *To the Rev. Dr. Wordsworth*, *To the Cuckoo*, "Bright flower, whose home," and the following eight sonnets: "It is not to be thought of," "Dark and more dark the shades of evening fell", "O friend I know not", "Milton, thou shouldst", "Surprised by joy—impatient as the wind", "Hail twilight, sovereign of our peaceful hour", "I thought of Thee, my partner and my guide", "Such age, how beautiful"; Tennyson, *The Epic and Morte d'Arthur*, *Ænone*, *The Brook*, and the following sections of "In Memoriam"; XXVII, LXIV, LXXXIII, LXXXVI, CI, CXIV, CXV, CXVIII, CXXIII; Shakespeare, *Merchant of Venice*, *Henry IV, Part 1*.

Passages for memorization: Wordsworth: "To the Cuckoo"; "It is not to be thought of"; "O friend, I know not"; "Milton, thou shouldst"; "Hail twilight, sovereign of our peaceful hour"; "I thought of Thee, my partner and my guide".

Tennyson: "Morte d'Arthur, ll. 246-255; *Ænone*, ll. 1-15, ll. 141-150, The lyric stanzas in the "Brook"; "In Memoriam": LXIV, LXXXIII, LXXXVI, CI, CXV, CXVIII.

Shakespeare—The Merchant of Venice —

Act I, Sc. 1, ll. 70- 99 Let me play . . . their brothers tools

Act II, Sc 9, ll 36- 49 Who chooseth me . . . to be new varnished.

Act IV, Sc. 1, ll 184-205 The quality of mercy . . . the deeds of mercy.

Act V Sc. I, ll. 54- 65 How sweet the moonlight . . . cannot hear it.

Act V, Sc I, ll 102-108. The crow doth sing . . . true proportion.

One examination paper.

*FRENCH

The prescription of work in grammar, the translation of English into French and sight translation, is the same for honours as for pass, but the examination will be of a more advanced character. The continuous passages of English for translation into French will be based on the prescribed texts

The following are the prescribed texts:—

1923. Augier et Sandeau, *la Pierre de Touche*; Feuillet, *le Roman d'un jeune homme pauvre* (Oxford Press or Copp, Clark)

Two papers will be set: (1) Prescribed texts and translation at sight; questions on grammar, (2) the translation of English into French.

*GERMAN

The prescription of work in grammar, the translation of English into German and sight translation, is the same for honours as for pass, but the examination will be of a more advanced character. The continuous passages of English for translation into German will be based on the prescribed texts.

The following are the prescribed texts:—

1923: Freytag, *Die Journalisten*; Gerstaecker, *Germelshausen*.

Two papers will be set: (1) Prescribed texts and translation at sight; questions on grammar; (2) the translation of English into German.

*SPANISH

The prescription of work in grammar, the translation of English into Spanish, and sight translation, is the same for honours as for pass, but the examination will be of a more advanced character.

The following is the prescribed text:—

1923: Pedro Antonio de Alarcón, *El Capitán Veneno*.

*When the edition is not specified any *unabridged* edition may be used

Two papers will be set. (1) Prescribed text and translation at sight, questions on grammar, (2) the translation of English into Spanish and composition.

ITALIAN

The prescription of work in grammar, the translation of English into Italian, and sight translation, is the same for honours as for pass, but the examination will be of a more advanced character

The following is the prescribed text.—

1923· Goldoni La Locandiera (Heath & Co).

Two papers will be set (1) Prescribed text and translation at sight, (2) questions on grammar and translation of sentences illustrating the grammar.

HISTORY

Modern World History from 1789 to 1920 The geography relating to the history prescribed. One examination paper.

Problems of the period a general statement (a) political, (b) social and economic, (c) educational, (d) religious.

The French Revolution, 1789-1799, and its influence on other peoples.

The Napoleonic Era, 1799-1815, and its world results.

The period of reaction after 1815.

The Industrial Revolution

The growth of Democracy to 1848, especially in England and the United States

The development of Nationalism after 1848 France, Italy, Germany, Russia, the Balkan States

National Imperialism. British Empire, German Empire, Russian Empire, China, Japan, the United States.

International Relations. Alliances of European Powers, the Munro Doctrine.

The Great War Causes, great campaigns, results

Survey of contemporary civilization: political, social and economic, educational (including literature and art), scientific, religious. Only outstanding features to be included.

Civics Development of the Canadian Constitution, 1763-1920, as outlined in the High School History of Canada

BOOKS OF REFERENCE

The following books will be found useful for supplementary reading on the topics of the course and should be placed in every High School library: Robinson and Beard, A History of Europe: Our Own Times, Ginn & Co.; Hazen, Modern European History, Holt; Hayes, Political and Social History of Modern Europe, 2 vols, Macmillan; Robinson and Beard, Readings in Modern European History, 2 vols, Ginn & Co., Matthews,

The French Revolution, Longmans, Belloc, The French Revolution, Ryerson Press; Fisher, Napoleon, Ryerson Press. Seymour, Diplomatic Background of the War, Yale University Press; Robertson and Bartholomew, Atlas of Modern European History, Oxford University Press, Hearnshaw, Historical Atlas of Modern Europe, Macmillan.

MATHEMATICS

ALGEBRA.—Elementary rules, factoring, highest common measure, lowest common multiple, fractions, simple equations of one, two and three unknown quantities, extraction of roots, more advanced factoring, simple graphs, simple ratios and proportion; indices and surds, quadratics of one and two unknown quantities; theory of quadratics, theory of divisors; ratio, proportion and variation, progressions, notation; permutations and combinations, binomial theorem, interest forms, annuities and sinking funds.

One examination paper.

TRIGONOMETRY—The trigonometrical ratios with their relations to one another; sines, etc., of the sum and difference of angles, with deduced formulas, use of logarithms; solution of triangles; expressions for the area of triangles; radii of circumscribed, inscribed and escribed circles.

One examination paper.

PROBLEMS: One paper. (For certain scholarship candidates only)

GEOMETRY: A candidate must take section C and either section A or section B

A.—SYNTHETIC GEOMETRY

Exercises on the course prescribed for the pass examination, with special reference to the following topics: loci; maxima and minima; the system of inscribed, escribed and circumscribed circles of a triangle, with metrical relations, radical axis.

The following additional propositions in Synthetic Geometry, with exercises thereon:—

To divide a given straight line internally and externally in medial section.

To describe a square that shall be equal to a given rectilineal figure.

To describe an isosceles triangle having each of the angles at the base double of the third angle.

To inscribe a regular pentagon in a given circle.

The squares on two sides of a triangle are together equal to twice the square on half the third side and twice the square on the median to that side.

If ABC be a triangle, and A be joined to a point P of the base such that BP:PC = m:n, then $nAB^2 + mAC^2 = (m+n)AP^2 + nBP^2 + mPC^2$.

In a right-angled triangle the rectilinear figure described on the hypotenuse is equal to the sum of the similar and similarly described figures on the two other sides.

If the vertical angle of a triangle be bisected by a straight line which also cuts the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base, together with the square on the straight line which bisects the angle.

If from the vertical angle of a triangle a straight line be drawn perpendicular to the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the perpendicular and the diameter of the circle described about the triangle.

The rectangle contained by the diagonals of a quadrilateral inscribed in a circle is equal to the sum of the two rectangles contained by its opposite sides.

Two similar polygons may be so placed that the lines joining corresponding points are concurrent.

If a straight line meet the sides BC , CA , AB , of a triangle ABC in D , E , F , respectively, then $BD \cdot CE \cdot AF = DC \cdot EA \cdot FB$, and conversely. (Menelaus' Theorem.)

If straight lines through the angular points A , B , C of a triangle are concurrent, and intersect the opposite sides in D , E , F , respectively, then $BD \cdot CE \cdot AF = DC \cdot EA \cdot FB$, and conversely. (Ceva's Theorem.)

If a point A lie on the polar of a point B with respect to a circle, then B lies on polar of A .

Any straight line which passes through a fixed point is cut harmonically by the point, any circle, and the polar of the point with respect to the circle.

In a complete quadrilateral each diagonal is divided harmonically by the two other diagonals, and at the angular points through which it passes.

B—ELEMENTARY SOLID GEOMETRY

Definitions General description of figures in three dimensions.

The following propositions, with exercises thereon:

A plane is determined by (a) a straight line and point not on it, (b) two intersecting straight lines, (c) two parallel straight lines.

Two intersecting planes cut one another in a straight line and in no other point.

If two straight lines are parallel, any plane intersecting one of them intersects the other.

If two planes are parallel, any straight line intersecting one of them intersects the other.

If a straight line is perpendicular to two intersecting straight lines at their point of intersection, it is perpendicular to every straight line in their plane through their point of intersection.

Conversely, all straight lines intersecting a given straight line at a given point and perpendicular to it lie in a plane.

If one of two parallel straight lines is perpendicular to a plane, the other is also

Conversely, if two straight lines are perpendicular to the same plane, they are parallel

If a straight line be at right angles to a plane, any plane through the line is perpendicular to the plane

To draw a perpendicular to a given plane from a given point

One, and only one, straight line can be drawn through a given point and perpendicular to a given plane

The perpendicular from a given point to a plane is the shortest distance from the point to the plane

If two straight lines are parallel to the same straight line they are parallel to each other.

If two intersecting straight lines are parallel respectively to two other intersecting straight lines the contained angles are equal.

If two planes have a common perpendicular they are parallel, and conversely

If two intersecting straight lines are respectively parallel to two other intersecting straight lines, the plane of the first two is parallel to the plane of the second two

Straight lines which are cut by three or more parallel planes are cut proportionally.

To draw a perpendicular to two given straight lines not in the same plane.

There is only one common perpendicular to two straight lines not in the same plane

In a tetrahedron the sum of any two angles at a vertex is greater than the third, and the sum of three angles is less than three right angles.

In a polyhedron the sum of the number of faces and the number of corners or vertices is two greater than the number of edges.

There are not more than five regular polyhedra.

The four diagonals of a parallelepiped are concurrent and bisect one another

The four straight lines which join vertices of a tetrahedron to the centroids of the opposite faces meet in a point which divides them in the ratio 3.1; and the three lines which join the middle points of opposite edges meet in the same point and are bisected there.

Any plane section of a pyramid taken parallel to the base, is similar to the base, and the area of such a section varies as the square of its distance from the vertex.

The volumes of two pyramids of equal heights and equal base areas are equal.

One sphere and only one can pass through four points not in the same plane.

Mensuration of volumes, surface areas, linear measurements in the

following: prism, pyramid, cylinder, cone; frustum of cone, pyramid, or sphere; zone of a sphere

C —ELEMENTARY ANALYTICAL GEOMETRY

Axes of co-ordinates. Position of a point in plane of reference

Transformation of co-ordinates,—origin changed, or axes (rectangular) turned through a given angle.

$$\pm 2 A = x_1(y_2 - y_3) + \dots + \dots$$

Co-ordinates of point dividing line joining $P_1(x_1, y_1)$ and $P_2(x_2, y_2)$ in

ratio $m:n$ are $x = \frac{m x_2 + n x_1}{m + n}, y = \frac{m y_2 + n y_1}{m + n}$

$$(P_1 P_2)^2 = (x_1 - x_2)^2 + (y_1 - y_2)^2$$

Equations of straight lines.

$$\left. \begin{aligned} \frac{-x_1}{x_1 - x_2} = \frac{y - y_1}{y_1 - y_2} \\ \frac{x}{a} + \frac{y}{b} = 1. \\ \frac{x - a}{\cos \theta} = \frac{y - b}{\sin \theta} = r \\ y = mx + b. \\ y = m(x - a). \\ x \cos \alpha + y \sin \alpha = p. \end{aligned} \right\} \begin{array}{l} \text{Line defined by two points} \\ \text{through which it passes.} \\ \\ \text{Line defined by one point} \\ \text{through which it passes,} \\ \text{and by its direction.} \end{array}$$

General equation of 1st degree, $Ax + By + C = 0$, represents a straight line.

Any line through (x_1, y_1) is $A(x - x_1) + B(y - y_1) = 0$.

If θ be angle between $Ax + By + C = 0$ and $A'x + B'y + C' = 0$, then

$$\tan \theta = \frac{A'B - AB'}{AA' + BB'}$$

Condition of $\perp$ rity, $AA' + BB' = 0$.

Condition of $\parallel$ ism, $\frac{A}{A'} = \frac{B}{B'}$.

Distance from (a, b) to $Ax + By + C = 0$, in direction whose direction cosines are (l, m) is $= \frac{Aa + Bb + C}{Al + Bm}$.

$$\begin{aligned} \perp \text{ distance from } (a, b) \text{ on } Ax + By + C = 0. \\ \pm \frac{Aa + Bb + C}{\sqrt{A^2 + B^2}} \end{aligned}$$

THE CIRCLE—

Equations in forms:

$$\begin{aligned} x^2 + y^2 &= r^2 \\ (x - a)^2 + (y - b)^2 &= r^2 \\ x^2 + y^2 - 2rx &= 0. \end{aligned}$$

General equation $x^2 + y^2 + 2Ax + 2By + C = 0$,

$$\text{or } (x + A)^2 + (y + B)^2 = A^2 + B^2 - C,$$

represents a circle with centre $(-A, -B)$ and radius $\sqrt{A^2 + B^2 - C}$.

Tangent at (x', y') to $x^2 + y^2 = r^2$, is $xx' + yy' = r^2$.

Normal is $\frac{x}{x'} = \frac{y}{y'}$.

Tangent in form $y = mx \pm r\sqrt{1 + m^2}$.

Pole being (x', y') , polar is $xx' + yy' = r^2$.

If pole move along a line, polar turns about pole of that line.

Square of tangent from (x', y') to $x^2 + y^2 + 2Ax + 2By + C = 0$

$$\text{is } x'^2 + y'^2 + 2Ax' + 2By' + C.$$

Radical axis of $x^2 + y^2 + 2Ax + 2By + C = 0$,

$$x^2 + y^2 + 2A'x + 2B'y + C' = 0$$

Easy exercises on the preceding propositions

One examination paper.

PHYSICS

A course defined as follows, the topics to be presented experimentally with mathematical applications simple and direct in character:

MECHANICS OF SOLIDS—Metric and English units of length. Use of vernier calipers, screw-gauge, in measurement of wires, cylinders, spheres, plates, etc.

Unit of time.

Motion: velocity, uniform and variable; average velocity; velocity at a point.

Newton's first law of motion, force, inertia, and mass; metric and English units of mass.

Acceleration, measurement of uniform acceleration, acceleration due to gravity, value of gravity.

Momentum; Newton's second law; measurement of force; metric and English absolute and gravitational units of force.

Newton's third law; conservation of momentum; centripetal and centrifugal force with illustrations, centrifuge, cream separator, form of earth, etc.

Composition and resolution of forces; parallelogram of forces; triangle of forces; moments; couples; centre of gravity.

Friction: laws of friction; co-efficient of friction.

Gravitation: Newton's laws of gravitation; Cavendish's experiment.

Work: measurement of work in metric and English absolute and gravitational units; energy; measurement of energy; kinetic and potential energy; conservation of energy.

Power: measurement of power; horse power; the watt.

Machines: mechanical advantage; lever; wheel and axle; pulley; inclined plane; screw; wedge; simple combinations of the foregoing.

MECHANICS OF FLUIDS.—Pressure: pressure at a point; Pascal's law; pressure due to gravity; equilibrium of fluids at rest; Archimedes' prin-

ciple; buoyancy; hydraulic pressure; specific gravity; determination of specific gravity of solids and liquids.

Atmospheric pressure: barometers; weight of air; pressure due to molecular motion; lift and force pumps; siphon; the use of compressed air; airbrakes, air tools.

Velocity due to pressure: Torricelli's theorem; pressure in a moving column of fluid varies with the velocity; application to explain the principle of the atomizer, the Bunsen burner, the Bunsen filter pump, forced draught, the curved flight of a ball.

Surface tension: surface force; surface energy; capillarity; practical applications.

TRANSFORMATIONS OF ENERGY.—Mechanical equivalent of heat, measured mechanically and electrically; measurement of electrical energy; the kilowatt hour.

CHEMISTRY

Chemistry of Pass Matriculation reviewed and continued.

Reversible reactions and chemical equilibrium: *e.g.*, ice = water; water = steam, bluestone = anhydrous copper sulphate and water; limestone = quick lime and carbon dioxide; ferric chloride and ammonium sulphocyanate = ferric sulphocyanate and ammonium chloride (in solution); a salt in equilibrium with saturated solution, etc. Conditions which effect equilibrium.

Rate of reaction and conditions that effect it (including catalysis), *e.g.*, the action of a dilute on solution of potassium permanganate, oxalic acid, in presence of sulphuric acid, the souring of milk, etc.

A study of the following elements and their most characteristic compounds, having regard to Mendelejeff's classification and to their most important economic and industrial applications: hydrogen, sodium, potassium, magnesium, zinc, calcium, aluminium, carbon, lead, nitrogen, phosphorus, arsenic, antimony, oxygen, sulphur, chlorine, bromine, iodine, iron, copper, silver.

Qualitative analysis (practical) may be used for studying the properties of the above elements and for further illustrations of reversible reactions and chemical equilibrium: *e.g.*, a very dilute solution of lead nitrate does not give a precipitate of lead chloride and the same solution may give a precipitate of lead sulphide and from this we may draw conclusions as to the relative solubility of these lead compounds; a dilute solution of lead nitrate with sulphuric acid gives a precipitate of lead sulphate soluble in nitric acid, etc.

It should be kept in mind that the student is not learning analysis but is using the scheme for qualitative analysis to provide illustrations of chemical equilibrium and to illustrate the properties of the compounds, *e.g.*, insolubility, etc.

Organic chemistry; alcohols, acids and esters (fats), methyl alcohol, ethyl alcohol, glycerine, acetic acid, stearic acid, ethyl acetate, tallow and lard Soap making Carbohydrates glucose, cane sugar, starch, cellulose. Hydrolysis of starch Proteins Petroleum and its commercial products Fractional distillation These organic compounds should be treated from the descriptive point of view and few formulas should be used

NOTE.—It is suggested that the topics under "Organic Chemistry" be not treated more exhaustively than they are in such text-books as Alexander Smith's Intermediate Chemistry, Macpherson and Henderson's First Course in Chemistry.

BIOLOGY

ZOOLOGY

Practical study of the external form of all types, and the dissection or the study of prepared specimens (or models), as specified below. Observational drawings are essential

Mode of life and life history of the various types. Reasons for including these types in their respective groups.

ARTHROPODA.—Practical study of the external features of the crayfish, including segmentation and appendages, mode of locomotion and respiration Description, life-history and relation to man of the following insects: May beetle, European corn borer, codling moth, tent caterpillar, mosquito, honey bee, ichneumon fly Comparison of the external features of the crayfish, grasshopper (or cricket), millipede and spider.

Study of the principles of classification as illustrated by the Arthropoda. Recognition-characters of the following orders of insects Orthoptera, Coleoptera, Odonata, Diptera, Lepidoptera, Hymenoptera and Hymenoptera.

VERMES.—Practical study of the external features of the earthworm Dissection of the earth-worm Study of cross-section of the earth-worm for arrangement of chief organ systems only. Mode of locomotion and respiration

MOLLUSCA.—Practical study of the external features and mode of locomotion and respiration, of the fresh-water clam; comparison in these respects with the snail.

PROTOZOA.—A practical study of the living amoeba or paramoecium.

CHORDATA.—

PISCES.—Practical study of the external features; chief visceral organs: circulation and respiration of some common fish.

AMPHIBIA.—Practical study of the frog under the following headings: (a) external features; (b) the skeleton; (c) the organs of respiration, circulation, digestion and excretion; (d) the central nervous system; (e) the attachment and action of a muscle of the hind leg. Study of a cross-section of the frog for arrangement of organ systems. Observation of the external features of the development of a frog or toad. Comparison of a frog with a fish as to organs of locomotion, circulation and respiration.

REPTILIA —Practical study of the external features of a snake and a turtle

AVES —Practical study of the external features, plumage and skeleton of some common bird. Adaptions to flight with special reference to the form, skeleton, and organs of respiration.

Chief types of bills and feet

MAMMALIA —Practical study of a (a) chief features of the skeleton, (b) organs of respiration, circulation, digestion and excretion, of a rabbit or a cat.

Comparison of the brain of a rabbit (or cat) with that of a bird, and of a frog.

Study of mammalian eye from a specimen or from a model

NOTE —Except in the case of the frog and of the earthworm where dissection is required, prepared specimens or models may be used. The cross-sections of the frog and of the earthworm should be studied with the low power microscope.

BOTANY

EXPERIMENTAL PHYSIOLOGY.—Practical studies of absorption (osmosis), plasmolysis, transpiration, photosynthesis, respiration, irritability (*e g*, heliotropism), and rate of growth.

MORPHOLOGY AND PHYSIOLOGY —Structure and general functions of the following plant organs: leaf, root, stem, flower, seed, fruit. Modification of roots, stems, and leaves for the special functions of storage and support. Light relations of leaves Stipules, spines and bud-scales. Underground stems, comparison of roots and stems Pollination and adaptations for cross-pollination. Fertilization, seed dispersal, vegetation reproduction as contrasted with sexual reproduction. Study of typical seeds. Classification of fruits. A study by means of sections of the cellular structure of the leaf and of the relative arrangement of the more important tissues and tissue systems of the stem and root of bean and maize, or of any other typical dicotyledon and monocotyledon.

CRYPTOGAMS.—The practical study of representatives of the chief subdivisions of the cryptogams. *spirogyra*, a mushroom, a lichen, a liverwort, a moss, a horsetail, a clubmoss, and a fern. Distribution and economic importance of yeasts and bacteria. Microscopic structure of the yeast plant Microscopic observation of a bacterial colony.

Recognition, economic importance and control of the following parasitic fungi: grain rust, loose smut of oats or corn smut, apple scab and black knot.

PHANEROGAMS.—The practical study of representative of the seed plants of the locality, including at least one member of each of the following

orders: Coniferae, Gramineae, Liliaceae, Ranunculaceae, Cruciferae, Rosaceae, Leguminosae, Sapindaceae, Umbelliferae, Labiatae, Scrophulariaceae, Compositae.

ECOLOGY.—*Relation of the structure of plants to their environment.* Plant associations, *e.g.*, mesophytes, hydrophytes, xerophytes. Characteristics of these classes.

CLASSIFICATION.—The placing of the types studied in their natural divisions, characteristics of these divisions.

Comparison of the ecological with the structural classification.

FACULTY OF ARTS

DEGREE OF BACHELOR OF ARTS

I MATRICULATION

1. A Candidate for admission to the Faculty of Arts must present certificates showing that he has passed in full the Matriculation examination as conducted by the Department of Education of Ontario in June and September under the direction of the University Matriculation Board.

2. A candidate for admission who has only Pass Matriculation standing may enter the First Year of the Pass Course but is not eligible to enter the First Year of an Honour Course.

3. In 1923 a candidate for admission to the First Year of the Pass Course must present certificates covering not only complete Pass Matriculation but also the requirements outlined in one of the following subsections.

(a) Credit (fifty per cent) at the Honour Matriculation examination in two of English, Latin, French, Algebra and Geometry, Greek *or* German *or* Spanish, Physics and Chemistry *or* Biology.

(b) At least seventy-five per cent. at the Pass Matriculation examination in each of any four of the twelve papers required; or at least sixty-six per cent. in each of any six of the twelve papers.

(c) The successful completion of the course at an Ontario Normal School.

4. A candidate for admission to the First Year of an Honour Course must present, in addition to complete Pass Matriculation, certificates giving him credit at the Honour Matriculation examination in the subjects prescribed for admission to the desired Honour Course. See Section 45.

5. A candidate for admission who presents, in addition to complete Pass Matriculation, certificates giving him credit at the Honour Matriculation examination in all or all but one of the subjects of the First Year of the Pass Course may be admitted to the Second Year of that Course; a candidate who lacks credit for one subject will be required to pass the First Year or equivalent examination in that subject before he will be allowed to register in the Third Year. A candidate who has not complete Pass Matriculation standing may be admitted to the Second Year of the Pass Course if he presents certificates giving him credit at the Honour Matriculation examination in ALL the subjects of the First Year. The prescribed fee for such admission to the Second Year is fifteen dollars.

6. Certificates of examinations recognized as equivalent in value to the Ontario Matriculation, Pass or Honour, may be accepted as far as they meet the Ontario requirements in subjects and percentages. A candidate applying for admission on such certificates must submit an official statement of the marks upon which these certificates were awarded.

7. The regulations respecting Matriculation together with a schedule of examinations which may be accepted as equivalent are to be found in the Curriculum for Matriculation.

8 The subjects of Pass Matriculation are: Latin, English, History, Mathematics and any two of the following—Greek, French, German, Spanish *or* Italian, Experimental Science *or* Agriculture. Two papers are set in each subject.

9 A candidate for Pass Matriculation will be allowed to write on one or more papers at a time in any order and on obtaining at least fifty per cent. of the marks assigned to any paper will be given credit for having passed in such paper.

10. The subjects of Honour Matriculation are: Greek, Latin, English, French, German, Spanish, History, Mathematics (Algebra, Geometry, Trigonometry), Physics, Chemistry, Biology (Botany, Zoology).

11. A candidate for Honour Matriculation will be allowed to write on one or more papers at a time in any order, and will be given credit for a subject on obtaining at least fifty per cent. in each paper of that subject, not necessarily at one examination.

II. PROCEDURE FOR ADMISSION

(a) GENERAL CONDITIONS

12. A candidate for admission should apply to the Registrar of the University for a form of application for admission as soon after August 1st as possible, he should fill out this form and return it to the Registrar together with the following: (a) all Pass and Honour Matriculation or equivalent certificates which he may hold, see Section 6, (b) any other evidence of ability to take the work proposed; (c) certificate of good character.

13. Each application for admission will be considered by the Committee on Admissions, and the candidate will be notified of their decision at as early a date as possible. **A Candidate is strongly recommended to await the decision of the Committee before leaving for Toronto.**

(b) ENTRANCE AT THE FIRST YEAR

14. Applications for admission to the First Year will be considered from the following classes of students:

(a) The student who has passed in full the Matriculation examination as conducted by the Department of Education of Ontario under the direction of the University Matriculation Board. Such a student when admitted becomes an UNDERGRADUATE in the Faculty of Arts.

(b) The student who presents other than Ontario certificates accepted by the University as equivalent to complete Pass Matriculation. Such a student when admitted will be ON PROBATION and will not be allowed to enter the Second Year until he has passed in full the examination of the First Year; he will then be granted the standing of an undergraduate in the Faculty of Arts. For a list of equivalent certificates see the Matriculation Curriculum. See Section 29.

(c) The student of mature age who has not complete Pass Matriculation or equivalent standing. Such a student, if admitted, will be ON PROBATION and will not be allowed to enter the Second Year until he has complied with all the conditions which the Council of the Faculty of Arts may impose. See Section 29.

(d) The student who is not proceeding to a degree in Arts, *i.e.*, an OCCASIONAL student. The application of such a student will be considered only when recommended by the staff in the department in which he wishes to enroll. Except by special permission of the Council an occasional student must pass the term and final examinations in a subject in which he may be enrolled before he can be allowed to enroll in that subject for the next higher year.

15. A student applying for admission to the First Year as an undergraduate must have completed the sixteenth year of his age on or before the first of October of the session in which he applies for registration. An occasional student must have completed the nineteenth year of his age on or before the same date.

(c) ENTRANCE AT THE SECOND YEAR

16. A candidate for admission who presents, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation examination in all or all but one of the subjects of the First Year of the Pass Course may be admitted to the Second Year of that Course; a candidate who lacks credit for one subject will be required to pass the First Year or equivalent examination in that subject before he will be allowed to register in the Third Year. A candidate who has not complete Pass Matriculation standing may be admitted to the Second Year of the Pass Course if he presents certificates giving him credit at the Honour Matriculation examination in ALL the subjects of the First Year. The prescribed fee for such admission to the Second Year is fifteen dollars.

17. The only courses open to a student entering on such certificates at the Second Year are the Pass Course, and on conditions to be determined by the Council the Honour Courses in Political Science and in Philosophy.

18. A student applying for admission to the Second Year as an undergraduate must have completed the seventeenth year of his age on or before the first of October of the session in which he applies for registration.

(d) ADMISSION AD EUNDEM STATUM

19. An undergraduate of another University may be admitted *ad eundem statum* on such conditions as the Senate on the recommendation of the Council of the Faculty may prescribe.

20. An applicant for admission *ad eundem statum* must submit with his petition (1) a calendar of his University giving a full statement of the courses of instruction, (2) an official certificate of character and academic standing.

21. Such an applicant may not compete for scholarships at his first examination if admitted to a standing lower than that held in his own University, but, if he obtain standing at this first examination he shall subsequently enjoy all the rights and privileges of an undergraduate of this University.

III. REGISTRATION AND ENROLMENT

22. Every student in attendance proceeding to a Bachelor's degree in the Faculty of Arts is required to register in the University and to enrol in either University College, or Victoria College, or Trinity College, or St. Michael's College.

23. Application for registration in the University, whether by mail or in person, should be made at as early a date as possible, and registration in the University together with enrolment in the College must be completed on or before the twenty-sixth of September, 1922. See Sections 12 and 13. **Neglect of early application will result in delay and inconvenience to the student.**

24. Enrolment with the instructors of the University and of the Colleges will begin at 9 a.m. on the twenty-fifth of September and must be completed by the student in person by 5 p.m. on the twenty-sixth of September, 1922.

25. After the twenty-sixth of September no student will be allowed registration for the whole or part of the session 1922-23, without the consent of the Council.

26. Every petition for registration subsequent to the twenty-sixth of September and prior to the first of November, must be accompanied by a sum of money reckoned at one dollar per diem for each day after the twenty-sixth of September. For sufficient cause the whole or part of such a sum may be refunded.

27. A student who has not enrolled in a subject or subjects on or before the twenty-sixth of September, may, at the discretion of the head of the department concerned, be refused admission to the classes or laboratories, until he shall have satisfied the head of the department that he is competent to proceed with the class. In order to qualify himself for admission such a student may be required to obtain tuition at his own expense.

28. Unless special permission is granted by the Council, on the recommendation of his College, a student of the First Year who has failed to obtain standing in the Pass Course at the annual examination, will not be allowed to repeat the year.

29. A student who has been admitted under Section 14 (b) or 14 (c), or a student who, having failed to obtain standing, is permitted to repeat a year, will be admitted on probation only, and will be allowed to register for the Easter Term, only on the recommendation of his College and with the consent of the Council.

IV. REGULATIONS RELATING TO STUDENTS IN ATTENDANCE

30. No student will be enrolled in any year, or be allowed to continue in attendance, whose presence is deemed by the Council of the Faculty to be prejudicial to the interests of the University.

31. Students proceeding regularly to the degree are required to attend the courses of instruction and the examinations in all subjects prescribed for students of their respective standing, and no student will be permitted to remain in the University who persistently neglects academic work.

32. Unless special permission is granted by the Council, a student who, at the close of two sessions in the University, has failed to secure standing in his year, will not be permitted registration in the Faculty of Arts.

33. The Students Administrative Council has been entrusted by the Caput with supervision of the conduct of the students, and has power, subject to the approval of the Caput, to deal with violations of the regulations governing conduct.

34. Any student who may be convicted of having taken part in a parade or procession through the city which has not been authorized by the police authorities after application by the Executive of the Students Administrative Council, will be severely disciplined.

35. All interference on the part of any student with the personal liberty of another by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence, is forbidden by the Caput.

36. A student who is under suspension, or who has been expelled from a College or from the University, will not be admitted to the University buildings or grounds.

37. The constitution of every University society or association of students in the Faculty of Arts and all amendments to any such constitution must be submitted for approval to the Caput. All programmes of such societies or associations must, before publication, receive the sanction of the Caput through the President. Permission to invite any person not a member of the faculty of the University to preside at or address a meeting of any society or association must be similarly obtained.

38. The name of the University is not to be used in connection with a publication of any kind without the permission of the Caput.

V. FEES

For the schedule of fees see page 40

VI PHYSICAL TRAINING

39 By order of the Board of Governors each male student proceeding to a degree must take Physical Training in the first and second years of his attendance. He must first undergo a medical examination by the Physical Director of the University in order to determine the character of his training

VII. COURSES LEADING TO THE DEGREE

40. A candidate for the degree of Bachelor of Arts must take one of the courses prescribed by the University. -

41. The courses for the degree of Bachelor of Arts extend over a period of four academic years

42. Unless specially exempted by the Council, every undergraduate proceeding to the degree must be in attendance on lectures at the University and at one of the Colleges throughout the session in all the subjects of his academic year

43. Unless in exceptional cases and by special petition to the Council, no student will be allowed registration in more than two Courses in the First Year, and in not more than one in any subsequent year

44. The courses leading to the degree of Bachelor of Arts are:

(a) THE PASS COURSE

(b) The following Honour Courses:

CLASSICS	MATHEMATICS
GREEK AND HEBREW	MATHEMATICS AND PHYSICS
ORIENTAL LANGUAGES	PHYSICS
ORIENTAL LANGUAGES (GK. OPT.)	BIOLOGY
FRENCH GREEK AND LATIN	PHYSIOLOGY AND BIOCHEMISTRY
MODERN LANGUAGES	BIOLOGICAL AND MEDICAL
ENGLISH AND HISTORY	SCIENCES
MODERN HISTORY	CHEMISTRY AND MINERALOGY
POLITICAL SCIENCE	CHEMISTRY
COMMERCE AND FINANCE	GEOLOGY AND MINERALOGY
PHILOSOPHY	HOUSEHOLD SCIENCE
PHILOSOPHY ENGLISH AND HIS-	HOUSEHOLD ECONOMICS
TORY	SCIENCE FOR TEACHERS
PSYCHOLOGY	

(c) THE ARTS AND FORESTRY COURSE.

45. Every student applying to enter the First Year of an Honour Course must present, in addition to complete Pass Matriculation standing, certificates giving him credit (See Section 11) at the Honour Matriculation or equivalent examination in the subjects prescribed in the following schedule:

CLASSICS—Greek, Latin, Mathematics (Algebra and Geometry) and one of French, German, Physics, Biology, preferably French or German.

GREEK AND HEBREW.—Greek, Latin, Mathematics (Algebra and Geometry) and one of English, French, German.

FRENCH GREEK AND LATIN:—Latin, Mathematics (Algebra and Geometry) and two of Greek, English, French.

MODERN LANGUAGES.—Latin, French, Mathematics (Algebra and Geometry) and one of English, German, History.

ENGLISH AND HISTORY.—Latin, Mathematics (Algebra and Geometry) and two of Greek, English, French, German.

MODERN HISTORY: { Latin, Mathematics (Algebra and Geometry),

POLITICAL SCIENCE: { History or English, and French or German.

COMMERCE AND FINANCE:—Latin, English, Mathematics (Algebra, Geometry and Trigonometry) and French or German.

PHILOSOPHY:—Latin, English, Mathematics (Algebra and Geometry) and one of History, Greek, French, German, Physics.

PHILOSOPHY ENGLISH AND HISTORY —Latin, Mathematics (Algebra and Geometry), one of History, English, Physics, and one of Greek, French, German.

PSYCHOLOGY:—Latin, Mathematics (Algebra, Geometry and Trigonometry), French or German, and one of Physics, Biology, Chemistry.

MATHEMATICS:

MATHEMATICS AND PHYSICS:

{ Latin, Mathematics (Algebra, Geometry and Trigonometry), Physics, and French or German.

PHYSICS:

BIOLOGY:

PHYSIOLOGY AND BIOCHEMISTRY:

BIOLOGICAL AND MEDICAL SCIENCES:

CHEMISTRY AND MINERALOGY:

CHEMISTRY:

GEOLOGY AND MINERALOGY:

HOUSEHOLD SCIENCE:

SCIENCE FOR TEACHERS:

{ Latin, Mathematics (Algebra, Geometry and Trigonometry), French or German, and one of Physics, Biology, Chemistry.

HOUSEHOLD ECONOMICS:—Latin, Mathematics (Algebra and Geometry) and two of English, French or German, Physics, Biology, Chemistry; preferably French or German and a science.

46. A student who does not hold the full Honour Matriculation standing prescribed for admission to an Honour Course may be admitted to such

Course by special permission of the Council; such student, if admitted, will be on probation and will be allowed to enroll for the Easter Term, only on the recommendation of his College and of the staff in the subjects, Pass and Honour, in which he is enrolled.

47. A student on probation admitted to the First Year of an Honour Course must obtain standing at the Pass examination of the First Year in the subject or subjects in which his Honour Matriculation credits fall short of the prescribed entrance requirements, before he will be allowed to enter the Second Year.

48. A student admitted on probation to an Honour Course of the First Year will not be allowed by the Council to enroll in any subject beyond the requirements of his course except on the recommendation of his College and of the Department in which he is enrolled on probation.

EQUIVALENT EXAMINATIONS—FIRST YEAR

49. Certificates of having passed the whole or a part of the following examinations *may* be accepted *pro tanto* for Pass Course subjects but not for the individual papers of a subject at the examination of the First Year or Senior Matriculation. Before exemption is granted on any of the certificates mentioned in this Section, a candidate may be required to satisfy the authorities of the University, and of his College, as to the equivalence of the examinations for which exemption is sought.

PROVINCE OF ONTARIO

The Honour Matriculation Examination and the Upper School Examination for Entrance to the Normal Schools or examinations of the same standard under other titles.

PROVINCE OF NOVA SCOTIA

Grade XII Examination.

PROVINCE OF MANITOBA

Grade XII Examination

PROVINCE OF BRITISH COLUMBIA

Senior Grade Examination.

PROVINCE OF ALBERTA

Grade XII Examination

PROVINCE OF SASKATCHEWAN

First Class Diploma or Senior Matriculation.

NEWFOUNDLAND

Associate in Arts (Senior) Examination.

GREAT BRITAIN

The local Examinations for Senior students, conducted by the Universities of Oxford and Cambridge.

50. A candidate submitting any of the certificates mentioned in the preceding section must submit an official statement of the marks on which the certificate was obtained.

51. In view of the recent change in the standard for passing in the Pass Course only those certificates which meet these conditions as to subjects and percentages will be accepted. Exemption will not be given in part of a subject of the First Year, *e.g.*, credit in Geometry alone will not be accepted; a student must have passed in both Algebra and Geometry to be given exemption in Mathematics.

52. The Council will consider applications for the recognition of certificates other than those mentioned.

53. A candidate presenting *pro tanto* certificates is eligible for scholarships and for ranking in Honour Courses but not for standing in the Pass Course.

THE DEGREE OF BACHELOR OF ARTS UNDER SPECIAL CONDITIONS

54. In order to assist teachers and others who desire to proceed to the degree of Bachelor of Arts, provision has been made for their instruction by 1, Teachers' Classes during the regular session, 2, (a) supervision during the academic year, and (b) the Summer Session.

55. The Pass Course according to the following scheme will be the basis of instruction:

First Year . . . English, Latin, French, Elementary Science, Mathematics (Algebra, Geometry and Trigonometry).

Second Year . English or Mathematics I, French, Science, History, Economics or Psychology.

Third Year . . . English, French or Mathematics I, Science, History, Economics or Ethics.

Fourth Year . . . English, French or Mathematics I, Science, History, Economics or History of Philosophy.

56. The subjects of the Second Year are divided into two groups, which are given in alternate years. The subjects for 1922-23 are History, Psychology, Political Economy and Science.

57. The subjects of the Third Year are divided into two groups which will be given in alternate years. The subjects for 1922-23 are History, French and Science.

58. The subjects of the Fourth Year for 1922-23 are History, Science and History of Philosophy.

59. These courses are open to persons actually engaged in teaching and to such others as have been approved by the Council. In all cases application for admission must be made to the Registrar of the University through the Director of University Extension. Only under exceptional circumstances will a candidate be allowed to attend classes in more than three subjects during one session of the Teachers' Course.

60. A student holding an Upper School certificate or its equivalent, may enter the Second Year on payment of the fee of \$15.00, provided he has

credit (fifty per cent. in each subject) for at least five of the six subjects of the First Year.

61. A student proceeding to the degree shall on or before the *first of October* of each year submit a statement of the work which he proposes to take (a) in the Teachers' Classes or (b) under supervision preparatory to the Summer Session, and on or before the *fifteenth of May* of each year, a similar statement of the work he desires to take during the Summer Session.

62. A student will receive credit for each subject in which he secures fifty per cent.

63. A student will not receive credit for a subject of a higher year until he has passed the examination of the lower year in the same subject. He may, however, be a candidate for examination in the work of two successive years in the same subject.

64. A student who has not been granted complete First Year standing may not enter upon the work of the Third Year, nor a student who has not been granted complete Second Year standing, upon the work of the Fourth Year.

65. Pursuant to Section 124 of the Revised Statutes of Ontario 1913, in the case of a candidate for the degree of Bachelor of Arts, registered in the Teachers' Course, enrolment in one of the Arts Colleges shall not be necessary.

66. Instruction during the regular session will be given as far as possible to meet the convenience of the members of the classes residing in Toronto and its immediate vicinity. Instruction during the regular session is also provided, as far as possible, in other centres in the Province where a sufficient number of teachers, or others employed during the day, may be enrolled.

67. The Summer Session is held during July and a part of August, and is open (a) to persons engaged in teaching, (b) to such others as have been approved by the Council of the Faculty of Arts, and (c) to regular students who have failed to receive credit in one or at most two subjects of the Pass Course, provided always that instruction in such subjects has been arranged for at that Summer Session.

68. The work of the Second, Third, and Fourth Years of the Teachers' Course may be covered in five years and will involve (a) attendance on Teachers' Classes during four regular sessions or (b) attendance for four Summer Sessions and supervision during four regular sessions.

69. Instead of completing his course under this plan a candidate proceeding to the degree is advised to attend the regular courses of instruction in the Fourth Year, in which case the fourth Summer Session is not compulsory. Students are advised to acquaint themselves with the regulations of the Department of Education respecting High School Assistants' certificates. See page 38.

70. A candidate will not be allowed to present himself for examination in any subject until he has attended one Summer Session and has had supervision of his work during one academic year, or until he has attended Teachers' Classes in that subject during one regular session or until he has completed the necessary minimum of attendance. See Section 68.

71. Supervision of work should precede the Summer Session, but as such supervision may follow class instruction, assistance in the work of either group of the Second Year or of the Third Year will be provided.

VIII. CONDITIONS FOR ACADEMIC STANDING

CREDIT IN PASS SUBJECTS

72. To receive credit in a Pass Subject, a candidate must obtain at least fifty per cent. of the examination marks, as well as fifty per cent. of the aggregate of the term and examination marks in that subject; but where he has at one examination obtained an average of sixty per cent. of all the marks assigned to the Pass subjects of his annual examination, forty per cent. will (subject to the provisions of Section 106) be accepted in one or at most two subjects in lieu of the fifty per cent. required above.

73. Except for candidates writing on the whole examination when standing may be obtained under Section 72, fifty per cent. in each subject will be required at supplemental examinations.

74. If a candidate, who is exempt from examination in Greek or Latin or French or German, pass subjects attached to Honour Courses of the First Year, obtains a minimum of fifty per cent. on any one or more of these subjects as an Honour subject of the First Year, he shall be exempt in the Second Year from examination in such pass subject or subjects. A student shall not be granted credit a second time for a Pass or Honour subject for which he has already received credit.

75. In the First and Second Years a candidate who has failed to receive credit in one of a group of optional subjects may with the approval of the Council present himself at the supplemental examinations in any other of the alternative subjects, except in the case of those subjects in which term work is an integral part of the subject. In such a substitution, however, the candidate must, unless exempted by the Council, comply with all the conditions respecting term work, *i.e.*, there can be no transfer of term marks from the subject originally chosen to that substituted.

76. A successful candidate in a subject is graded as "A" or "B" or "C" or "Below the Line (B.L.);" according to the percentage obtained in the subject. For grade "A", a candidate must obtain at least seventy-five per cent., for grade "B", at least sixty per cent., for grade "C", at least fifty per cent. of the marks assigned to a subject, provided he has obtained at least fifty per cent. of the examination marks in the subject. For grade "B.L." he must obtain at least forty per cent. of the marks assigned to a subject.

STANDING IN THE PASS COURSE

77. A candidate in May, June or September will be granted standing, provided he obtains credit under Section 72, (1) in all of the subjects of the year and in the one subject of the previous year in which he may have failed, or (2) in all but one of these subjects, or (3) in all but two of these subjects.

78. A candidate who has been granted standing in the First Year, but who has failed in two subjects, must obtain credit in at least one of these subjects before he can register in the Second Year.

79. A candidate who has been granted standing in the Second or Third Years, but who has failed in two subjects, must obtain credit for **both** these subjects before he can register in the higher year.

80. A candidate for the examination of the First Year who has been granted exemption from examination in one or more subjects will be granted standing provided he obtains credit in the subjects necessary to complete his year, under the conditions laid down in Sections 72 and 77.

81. A candidate who has failed to secure complete First Year standing may not enter upon the work of the Third Year, nor may a candidate who has failed to secure complete Second Year standing enter upon the work of the Fourth Year.

82. A candidate who obtains an average of seventy-five per cent. of all the marks assigned to the subjects of his annual examination will be awarded Grade A standing in his course, provided that he has not failed in more than one subject either of his academic year or of the previous year.

83. A candidate who obtains under like conditions an average of sixty per cent. will be awarded Grade B standing

84. A candidate who obtains under like conditions an average of fifty per cent. will be awarded Grade C standing.

CREDIT IN HONOUR SUBJECTS

85. A candidate who obtains at least seventy-five per cent. of the marks assigned to an Honour subject will be awarded First Class Honours.

86. A candidate who obtains at least sixty-six per cent. but less than seventy-five per cent. of the marks assigned to an Honour subject will be awarded Second Class Honours.

87. A candidate who obtains at least sixty per cent. but less than sixty-six per cent. of the marks assigned to an Honour subject will be awarded Third Class Honours.

88. A candidate who obtains at least fifty per cent. but less than sixty per cent. of the marks assigned to an Honour subject will be ranked as "Below the Line".

89. No candidate will be granted Honours or Below the Line in an Honour subject where term work is taken into account, unless he obtain at

least fifty per cent. of the marks at the May examination, as well as fifty per cent. of the aggregate of the term work and examination marks in that subject.

90. A candidate who fails to obtain fifty per cent. in an Honour subject, may be granted pass standing therein.

STANDING IN HONOUR COURSES

91. In order to obtain standing in an Honour Course, a candidate must have obtained (a) at least fifty per cent. in each Honour subject of the course as well as (b) credit as defined in Section 72 in all, or all but one of the Pass subjects attached thereto.

92. A candidate in the Fourth Year who fails to obtain standing in his Honour Course may on recommendation of the examiners be awarded a Pass degree. Such a candidate may accept the award or may repeat the year and again compete for Honours.

93. A candidate will be awarded First Class Honours in order of merit who has obtained an average of seventy-five per cent. of all the marks assigned to the Honour subjects of his course, and has also fulfilled the conditions regarding Pass subjects attached thereto. See Section 91.

94. A candidate will be awarded Second Class Honours in order of merit who has obtained an average of at least sixty-six per cent. but less than seventy-five per cent. of all the marks assigned to the Honour subjects of his course, and has also fulfilled the conditions regarding Pass subjects attached thereto. See Section 91.

95. A candidate will be awarded Third Class Honours who has obtained an average of at least sixty per cent. but less than sixty-six per cent. of all the marks assigned to the Honour subjects of his course, and has also fulfilled the conditions regarding Pass subjects attached thereto. See Section 91.

96. A candidate will be ranked as "Below the Line" who has obtained less than sixty per cent. of all the marks assigned to the Honour subjects of his course, and has also fulfilled the conditions regarding Pass subjects attached thereto. See Section 91.

97. A candidate in an Honour Course, who has failed in two Pass subjects, will have his standing deferred both in the Honour Course and in the individual subjects thereof, and will be debarred from registration and enrolment until he has passed in both of these Pass subjects.

98. A candidate in an Honour Course will not be granted standing in his year if he fail in more than two Pass subjects.

99. A candidate of the First or Second Year who fails to secure standing in an Honour Course may be transferred to the Pass Course on such conditions as the Council may impose. Such a candidate may accept the award or may repeat the year and again compete for Honours.

100. A candidate in an Honour Course of the Third Year who fails to secure standing must repeat the Year, unless he be transferred to the Pass Course by the Council on the special report of the Board of Examiners.

101. A candidate who has not been granted complete First Year standing, may not enter upon the work of the Third Year, nor a candidate who has not been granted complete Second Year standing upon the work of the Fourth Year.

TERM WORK

102. In the Pass Course, reports on the term work of every student proceeding to a degree will be made in all the subjects of each year, except in purely lecture courses where the Council, on the recommendation of the teaching staff, may have approved the omission of such reports.

103. The marks for term work in a subject of the Pass Course will be determined in the manner considered most suitable by the teaching staff in that subject.

104. In all subjects of the Pass Course, the ratio of term marks to examination marks will be as fifty to one hundred, except in English where the ratio is as one hundred to one hundred.

105. A candidate whose term work in English is reported as unsatisfactory must repeat such term work.

106. A candidate who obtains less than fifty per cent. of the marks assigned to the term work in any one of the Pass Sciences of the Second, Third and Fourth Years must repeat such term work.

107. When a student fails to secure credit in a Pass subject because of a deficiency in term marks he must either (1) earn a new term mark under conditions to be determined by the staff in the subject, and repeat the examination or (2) make up the deficiency of term marks by securing a corresponding increase in his examination marks. In the case of English and of the Pass Sciences of the Second, Third and Fourth Years, see Sections 105 and 106.

108. In the Honour Courses, reports in term work will be made wherever such work is specified as a part of the course.

109. In an Honour Course, the ratio of term marks to examination marks in a subject will be determined by the staff in that subject.

110. A term examination shall not, unless it be so specified in the calendar, take the place of the Annual Examination in May on any portion of the prescribed work of an Honour Course.

CONDITIONS OF ENTRANCE TO THE VARIOUS YEARS

111. Unless special permission is granted by the Council, a student of the Pass Course in the Second Year is not permitted to attempt the work of an Honour Course in addition to the Pass Course.

112. In order to proceed in an Honour Course in the Second Year a candidate at the examination of the First Year (1) must have fulfilled the conditions of Section 91, (2) must, if his standing is deferred, have fulfilled the conditions of Section 97, and (3) in the case of a student on probation must have fulfilled the conditions of Section 47.

113. In order to proceed in an Honour Course in the Third Year, a candidate at the examination of the Second Year (1) must have fulfilled the conditions of Section 91, (2) must have complete First Year standing, and (3) must, if his standing is deferred, have fulfilled the conditions of Section 97. A candidate who fails to comply with these conditions must either repeat the Second Year of his Honour Course or, if transferred, proceed in the Pass Course of the Third Year, *i e*, he cannot in the Third Year take both the Pass Course and an Honour Course without the consent of the Council.

114. In order to proceed in a Honour Course in the Fourth Year, a candidate at the examination of the Third Year, (1) must have fulfilled the conditions of Section 91, (2) must have complete Second Year standing, and (3) must, if his standing is deferred, have fulfilled the conditions of Section 97. A candidate who fails to comply with these conditions must repeat the Third Year of the Honour Course unless transferred to the Pass Course by the Council on the special report of the Board of Examiners.

REPEATING THE YEAR

115. A student who has been granted standing in any year of the Pass Course may on conditions to be determined by the Council repeat that year in an Honour Course, and on obtaining standing, may proceed therein. A student who has been granted complete standing in the Pass Course of the First Year and who desires to repeat that year in an Honour Course, must have met the entrance requirements of the Honour Course as laid down in Section 45, at either the First Year or Honour Matriculation Examination. The student's attention is drawn to the fact that standing in Elementary Science or Ancient History of the First Year will not be accepted as the equivalent of credit at Honour Matriculation in a Science or History respectively.

116. A candidate in any course who for any cause is debarred from the higher year, may repeat the whole examination in the following May, but is not eligible for scholarships, medals, or prizes.

IX. EXAMINATIONS

117. No candidate will be admitted to examination unless the Head of the College in which he is enrolled certifies that he has complied with all the requirements of that College affecting his admission to such examination.

118. A candidate will not be admitted to an examination unless he has paid all the fees due from him. A candidate who fails to pay his examination fees on or before the fifteenth of March—the last day for receiving fees prior to the May examination—must pay an additional fee of one dollar.

119. A candidate who fails to send his "application for examination" by the day appointed for receiving such applications must pay an additional fee of one dollar.

120. No candidate in a course involving practical work in a laboratory will be admitted to examination if the Professor under whom his work is carried on reports that he has neglected his laboratory work or signally failed in the practical examinations.

121. Representations on the part of candidates with regard to the examination must be made in writing to the President. Applications for aegrotat standing must be made to the Registrar **before the close of the Examination.**

THE MAY EXAMINATION

122. The May examination is held at the University and is open to candidates of all the Years in the Pass Course and in all the Honour Courses.

123. Arrangements will be made, whenever possible, to allow a graduate, who is engaged in teaching in Ontario and who desires to receive credit in subjects not taken during his undergraduate course, to take such examinations in his own locality.

124. If the time-table permits, a candidate may present himself for examination in subjects in which he has previously failed to receive credit.

125. In the case of Fourth Year candidates, where there is a conflict in the time-table, a special supplemental examination may be arranged.

126. A candidate for examination is required to send an application, according to a printed form, to the Registrar not later than the 15th of March.

THE JUNE EXAMINATION

127. The June Examination, which is held at the University, and may be held at local centres as well, is exclusively for candidates for Senior Matriculation in the Pass Course.

128. A candidate for this examination is required to send an application, according to a printed form, to the Registrar not later than the 1st of May.

THE SEPTEMBER SUPPLEMENTAL EXAMINATION

129. The September Supplemental examination is held at the University, and is open (1) to candidates who failed in subjects of the Pass Course

at a previous examination, and (2) to candidates in any year of the Pass Course, who were prevented by sickness, domestic affliction or other causes beyond their control, from attending the May Examination. The latter candidates must prove to the satisfaction of the Council the sufficiency of the alleged cause of absence.

130. If feasible this supplemental examination will be held at Winnipeg, Regina, Saskatoon, Edmonton, Calgary and Vancouver. The candidate for whom such an examination is held must meet the expenses incurred and should make early application for the privilege.

131. A candidate for this examination is required to send an application, according to a printed form, to the Registrar not later than the 1st of August.

THE JANUARY SUPPLEMENTAL EXAMINATION

132. The January examination is held at the University and is open to candidates who were awarded standing in the subjects of their course at the May or June examination and were prevented by sickness, domestic affliction or other causes beyond their control from attending the September examination. Such candidates must prove to the satisfaction of the Council the sufficiency of the alleged cause of absence.

133. A candidate for this examination is required to send an application, according to a printed form, to the Registrar not later than the 1st of December.

LOCAL SENIOR MATRICULATION EXAMINATIONS

134. Local Senior Matriculation examinations will be held in June at such centres as may from time to time be authorized by the Council of the Faculty.

135. Applications for the establishment of such an examination in June must be made through the Registrar not later than the 1st of May.

136. The presiding examiner or examiners at a local Senior Matriculation examination will be appointed by the Council of the Faculty, and should, if necessary, be competent to conduct an examination in French or German Dictation.

137. The expenses in connection with such local Senior Matriculation examination must be met by the candidates at the centre or by the authorities of the school or college on whose application the examination is held.

138. The fee for the presiding examiner will be \$5 per diem during the whole examination period.

GENERAL INFORMATION

THE LIBRARY

The University Library is contained in a building of its own, situated on the east side of the campus that lies to the south of the Main Building. All students who have paid a library fee to the Bursar of the University are entitled to the privileges of the Library. Besides Reading Rooms the building contains Departmental Studies, which may be used as study-rooms by honour students in the various branches in which the Professors hold seminary courses, and private studies, intended for members of the Faculty or advanced students engaged in research work. The Library is opened at 8.45 every morning and remains open until 5.15 in the afternoon (6 p.m. during the second term). Books in ordinary use may not be taken out of the building during the daytime, but are lent for the night shortly before the hour of closing, to be returned the following morning before 10 o'clock. Books not in general demand may, on special application, be borrowed for a longer period. Failure to return a borrowed book at the proper time and other breaches of the regulations are punishable by fine or suspension from the privileges of the Library.

ROYAL ONTARIO MUSEUM

ARCHAEOLOGY, GEOLOGY, MINERALOGY, PALAEOLOGY, ZOOLOGY

Students of the University in all departments are recommended to avail themselves of the privileges of the Museum, which, although under separate control, is intimately connected with the work of the University.

The Museum is open on all week days from 10 a. m. to 5 p.m., Sundays 2 to 5 p.m. The Admission is free to the public on Tuesday, Thursday, Saturday and Sunday. On other days an admission fee of fifteen cents is charged.

By a resolution of the Board of Trustees all regular students of the University may be admitted free on all days of the week by presenting their card of registration.

HART HOUSE

Hart House, the gift of the Massey Foundation, is the Undergraduates Union of the University of Toronto.

Hart House contains completely equipped Club rooms, including common rooms; reading room; music room; lecture room; sketch room; photographic dark rooms; the Great Hall, used as a dining hall; a small chapel; the offices and class rooms of the Y.M.C.A.; gymnasium and swimming pool; rifle range; billiard room; and the Hart House Theatre.

All male students proceeding to a degree in the University are members of Hart House. An annual fee imposed by the University covers the fee of the Students Administrative Council, all club fees in connection with Hart House, and membership in the Athletic Association, including the medical examination.

Other male students in the University, or students in the affiliated or federated institutions receiving instruction in the University, may become members of Hart House on payment of the required fee.

Graduates are entitled to the full privileges of membership on payment of the annual fee of \$10. Out-of-town graduates may become members on payment of an annual fee of \$2.50.

A group of rooms is set apart for the use of the Faculty Union. There is also a dining room and a common room for the use of graduates. Five guest rooms are available for the use of guests, for periods of a week or less at a reasonable rental.

The Theatre is under the management of the Board of Syndics of the Hart House Theatre and is maintained for the production of an annual programme of plays which are open to the general public as well as the members of the University.

For further information, apply to the Warden of Hart House.

UNIVERSITY COLLEGE WOMEN'S UNION

85 ST. GEORGE STREET

Resident Head, Miss M. M. Waddington, Ph.D.

The Union contains a common room, library, dining rooms, and guest room for the use of members.

MEMBERSHIP—All women undergraduates of University College are members of the Union. Graduates may also belong. (For membership fee see Fees).

MEALS are by flat rate or ticket.

Flat rate per week	\$5.00
Breakfast (7 tickets)	2.00
Luncheon (5 tickets)	1.25
Dinner (7 tickets)	3.50

REGISTRATION—All women undergraduates in University College are required to register with the Resident Head at the beginning of term.

BOARDING HOUSES—Women undergraduates who are away from home and not living in Queen's Hall or a College residence must have their boarding houses approved by the Resident Head. Students who need boarding houses are asked to communicate with her by letter after August 1st.

VICTORIA COLLEGE WOMEN'S STUDENT UNION

The Women's Student Union, situated in the South end of Annesley Hall, with entrance by the south-west gate, comprises a common-room, library, committee room, tea room, kitchen and cloak rooms. These serve as common rooms for the women students of the College, and are the centre of their social activities. The rooms are available for committee meetings, discussion groups, Bible study classes, larger meetings, and class receptions. The Women's Undergraduate Association, under the supervision of the Dean's council, makes the rules and regulations for the use of the rooms.

Luncheon and dinner for a limited number of women students may be had in the Annesley Hall dining-room.

For women students the fee is \$4 00, to be paid to the fees clerk of the College. The money so derived will be applied to the maintenance of the common rooms.

For further information please apply to the Dean of Women Students, Victoria College.

RESIDENCES

UNIVERSITY OF TORONTO

RESIDENCE FOR MEN

By the generosity of Mr. and Mrs. E. C. Whitney and other friends, the University can now offer to some hundred and fifty men the peculiar advantages of residential life and excellent accommodation within its own grounds. The Residence, opened in November, 1908, consists of three Houses situated on the north side of Hoskin Avenue, opening upon a quadrangle, the fourth side of which is formed by Devonshire Place. They stand about two hundred yards to the north of University College and close to Hart House to which is attached the University Dining Hall. The buildings are known as the South, East and North Houses.

Each House contains twenty-four single rooms, one single suite, one double room and eleven suites, a suite comprising a study and two bedrooms. A large room in each building, with an open hearth and a library, has been set aside as a common room. A lavatory with hot and cold shower baths is provided for every eight men. The buildings are heated by steam and lighted by electricity.

The University supplies the table, chairs, book-case, chiffonier, bed, mattress, pillows, linen and window shades for each room; it is prepared to furnish a desk-lamp for a nominal rental.

Each occupant is charged \$4.00 room-rent per week, payable to the Bursar four weeks in advance. The charge for each single suite is \$5.00 per week. These charges cover heat, light, house-service, house-laundry, and the use of the telephone. There is no separate dining hall connected

with the Residence, but board may be obtained at the adjacent University Dining Hall.

Applications for rooms must be made in writing to the Secretary of the Residence Committee (address the Registrar's Office) and must be accompanied by a deposit of \$5 00. This deposit will be returned if the application is not granted, but will be forfeited if a room is assigned to the applicant and not taken by him, unless notice of his refusal of the room is received by the Secretary in writing before September 22nd. It will be returned in full at the end of the College year if the room key is given back and the room and furniture left in a satisfactory condition. The following principles govern the allotment of rooms: (i) No student, who as a result of the annual Spring examinations is not assured of being able to proceed to a subsequent year, will be admitted into the Residence. Exception to this rule will be made in the case of a student in the Faculty of Medicine who has obtained standing at the May examination, but is debarred by the rules of that Faculty from proceeding to the subsequent year until he has passed his Supplemental examinations. Such a student will be assigned a room provisionally, but cannot occupy it unless he passes his Supplemental examinations in September. (ii) The rooms in each house will be distributed among the various Faculties and Years. (iii) A limited number of rooms will be reserved for members of the incoming First Year until September 12th. (iv) Applications will be considered in order of priority.

The University lays down three general rules, designed to prevent hazing, the use of intoxicants and gambling. The students in each House shall elect a House Committee, which is entrusted by the University with the making and enforcing of any other needed rules and with the maintenance of order. A member of the Faculty resides in each House to act as friend and adviser to the men in residence.

QUEEN'S HALL, RESIDENCE FOR WOMEN,
NOS. 4, 7, 9 QUEEN'S PARK

Superintendent, Miss Louise I. Livingstone, B.A.

Accommodation is provided for 97 students. The rate for room and board is \$9.50 per week and these dues must be paid to the Bursar four weeks in advance.

Applications for rooms must be made in writing and a deposit fee of \$5.00 must accompany each application. The fee will be returned if the application is not granted or if it is withdrawn before the 15th of September. It will be returned in full at the end of the college course if the room is left in good condition and there are no breakages.

Applications from First Year Students will be considered first, the other years in order of priority. Those undergraduates who have supplemental examinations to write must be successful before they can be enrolled.

The students elect a House Committee to assist the superintendent in the maintenance of order and for the general welfare of the household.

UNIVERSITY COLLEGE

RESIDENCE FOR WOMEN, 94 ST. GEORGE STREET

94 St. George Street was opened in the autumn of 1919 in connection with the University College Women's Union. Accommodation is provided for thirty-six students. The rate for rooms is \$4.00 to \$5.00 a week, payable in advance by the month or term to the Bursar. Meals are taken at the Union. The rate for meals is \$5.00 a week. Applications for residence are to be made to Miss M. M. Waddington, 85 St. George Street, Toronto, and are to be accompanied by a deposit of \$5.00, which will be refunded if the application is withdrawn before September 15th. The deposit will be returned in full at the end of the College Course if the room is left in good condition.

VICTORIA COLLEGE

THE RESIDENCE FOR MEN

There is accommodation in the four houses of the Residence for 132 undergraduates of Victoria College. Each room is completely furnished as a combined study and bed room. About 15 rooms have fire places. There is a Common Room in each House. The weekly charge to men in Residence for room and meals is from \$8.75 to \$9.50. The Dining Hall, known as Burwash Hall, is mainly for the use of students of Victoria College, but there is accommodation for a limited number of men from other Colleges and Faculties. Students, other than those in Residence, may buy individual meal tickets, strip of tickets or board at a weekly rate of \$6.00. Applications for rooms and all inquiries should be addressed to the Dean of Residence, Victoria College.

RESIDENCES FOR WOMEN

The women students of Victoria College are housed in four buildings—Annesley Hall, South Hall, the Annex, Oaklawn, accommodating sixty-six, twenty-five, fourteen, and twenty-six students respectively. The houses are all near the College.

Applications for rooms must be accompanied by a deposit fee of \$10.00, which will be refunded if the application is withdrawn before September the first. Fees for the year range from \$265 to \$400, according to the location of the room, and are payable half on the first of October and half on the first of February.

Additional fees are:—medical examination \$2.00; nurse's fee \$10.00, use of laundry \$2.00. These charges are subject to change.

For further information kindly write to the Dean of Women Students, Victoria College, Queen's Park, Toronto.

TRINITY COLLEGE

Trinity College provides residences for both men and women students. The men reside in Trinity College, in which there is accommodation for seventy students or upwards. The women reside in St. Hilda's College and St. Hilda's Lodge, in which together accommodation for fifty or more is provided.

RESIDENCE FOR MEN

Excellent accommodation for men is to be found in the residence set apart for their use. Several members of the staff are resident in the building. The students' living rooms are so arranged that two students may room together, or a student may have a room to himself, as may be preferred. Details as to fees for room and board, which are maintained at the lowest rate consistent with first class service, will be sent on request. There is a students' common room, gymnasium—which is used also for basket-ball and boxing—a hockey rink, tennis courts, a large field for sports, and ample grounds surrounding the College buildings. College affairs affecting student life are arranged by the students themselves in the "College Meeting", which is formally organized and embraces all the students of the College under the chairmanship of the senior student, known as "Head of College".

Applications for rooms in College are to be made on a printed form provided for this purpose, and are received at any time after the 1st of January for the succeeding Michaelmas Term, being subject to withdrawal on written notice up to the 1st September. Most of the rooms, being furnished partly by the College and partly by the occupants, may be fitted up to suit the taste of the individual student. Further information, with blank forms of application, will be supplied on request being made to "The Provost, Trinity College, Toronto".

RESIDENCE FOR WOMEN

Excellent accommodation for the women students of Trinity is provided in St. Hilda's and St. Hilda's Lodge, both situated within the grounds of Trinity, about three minutes walk from lecture rooms.

The buildings are well planned and the rooms attractive. Provision is made for tennis and basket ball.

For information as to fees and academic qualifications for admission, also for blank forms of application, address The Provost, Trinity College, Toronto. Applications for residence are referred by him to the Principal, St. Hilda's, but no applications for residence can be accepted until the academic qualifications have been submitted to the Provost.

ST. MICHAEL'S COLLEGE

For Catholic students St. Michael's now offers all the advantages peculiar to a Catholic College.

RESIDENCE FOR MEN

There is accommodation for the men at St. Michael's College. Parents are most careful of the dangers and temptations to which students, away from home for the first time, are subjected. This is a point that St. Michael's chiefly considers, and she is in a position almost to guarantee that the student will be as safe in every way as if he were in his own home, in addition to receiving all the advantages of the University.

The residents are subjected to a reasonable rule with a view to careful supervision, and a solid moral and religious training. Constant and intimate intercourse between staff and student is a feature.

The health and development of body and mind is promoted by regulated hours of study and recreation. Opportunity is given for all kinds of athletic exercise. For terms and application, address "The Superior".

RESIDENCE FOR WOMEN

For women students, St. Joseph's Convent, St. Alban's Street, and Loretto Abbey College, 385 Brunswick Avenue, are providing residences to meet in every way the wishes of all. Address "The Superior".

ARGYLL HOUSE

100 QUEEN'S PARK

Accommodation for thirty women students is afforded by Argyll House. Applications should be made to the Secretary of the Argyll House Committee, 85 St. George Street, Toronto, from whom terms of residence may be obtained

STUDENTS ADMINISTRATIVE COUNCIL

The Students Administrative Council has been entrusted by the Caput with supervision of the conduct of the students, and has power subject to the approval of the Caput, to deal with violations of the regulations governing conduct.

Any student who may be convicted of having taken part in a parade or procession through the city which has not been authorized by the police authorities after application by the Executive of the Students Administrative Council, will be severely disciplined.

WOMEN STUDENTS ADMINISTRATIVE COUNCIL

The Women Students Administrative Council is the representative organ of the women students of the University of Toronto and aims to coördinate all intercollegiate activities. It consists of representatives from all colleges and faculties. A fee of \$3 is paid for the council by each woman student proceeding to the Bachelor's degree. The council assumes joint financial responsibility with the men's council for the publication of *Varsity* and *Torontonensis*.

CANADIAN OFFICERS TRAINING CORPS

The Toronto Contingent of the Canadian Officers Training Corps was organized in 1914, with a strength of 12 Companies. Its primary object is to provide students at Universities with a standardized measure of military training with a view to their qualifying for commissions in the country's auxiliary forces. C.O.T.C. certificates of qualification exempt their holders from examination for commissioned rank on joining a Militia unit. The facilities which are offered by the contingent for obtaining a qualification while at the University are intended to enable young gentlemen to give personal service to their country with the least possible interference with their civil careers, to ensure that units have their establishments complete in the junior commissioned ranks, and to build up an adequate reserve of scientifically trained officers who have completed a period of consecutive and systematic military training, on academic lines, of a nature calculated to produce good officers.

The contingent provides the practical work for students taking the Military Studies option for the Arts degree, as also physical exercise for students who may choose this as the form in which they will take their compulsory Physical Training. In addition to service in the corps for a University credit, students of any year or faculty are trained in it to qualify for officers' certificates, writing on the examinations set by the War Office for members of O.T.C. contingents throughout the Empire.

During session 1921-22 three companies were successfully reorganized—in Arts, Medicine and Applied Science respectively—and it is hoped so to arrange the training of each that on leaving the University students will be qualified for commissions in that branch of the Militia to which their University course particularly applied. By arrangement with the Air Board, also, selected members who are undergraduates in Applied Science are admitted to summer courses in aviation, for which they receive pay, rations and quarters.

The C.O.T.C. is a unit of the non-permanent Active Militia but forms no part of the organization for war and cannot be called out for active service as such. It is a training centre for the educated youth of the country from whom, as from all its sons, the Empire requires hard service, but the hardest from those to whom most has been given.

The present Headquarters are at 184 College Street, and include armouries, members' reading room, library and lecture room.

The Contingent's Staff is,

Officer Commanding, COLONEL W. R. LANG, Late Gen. Staff, C.E.F.

Second in Command, MAJOR T. R. LOUDON, late Can. Eng., C.E.F.

Adjutant, MAJOR H. H. MADILL, late Instructional Cadre, C.E.F.

Quartermaster, LIEUT. V. C. KERRISON, late C.A.S.C., C.E.F.

Paymaster, LIEUT. T. A. REED

Contingent Sergeant-Major, S.M. W. HUNT, late Royal Welch Fusiliers.

ACADEMIC STANDING FOR HIGH SCHOOL ASSISTANT'S
CERTIFICATE

The Department of Education of Ontario has approved the following regulations with respect to the academic standing necessary for admission to the Course for a High School Assistant's Certificate in the Ontario College of Education:

I. ORDINARY HIGH SCHOOL CERTIFICATE

A candidate for admission shall submit with his application his certificate of graduation as Bachelor or Master of Arts, Bachelor or Master of Science, Bachelor of Commerce, Bachelor of Agriculture, or Bachelor of Applied Science, from a British university, after a regular university course approved by the Minister of Education as to entrance requirements and as to content of the undergraduate courses. Each applicant must have Upper School or Honour Matriculation standing in English and History and Mathematics or the equivalent of such standing.

II. HIGH SCHOOL SPECIALIST'S CERTIFICATE

Subject to the conditions specified below, the academic standing for admission to the courses leading to High School Specialists' certificates in Classics, English and French, English and German or Spanish, French and German or Spanish, English and History, Mathematics and Physics, Science, and Household Science is an Honour degree in Arts from any one of:—the University of Toronto, Queen's University, McMaster University, and the Western University.

1. The courses in the departments specified above shall be the Honour courses as defined in the calendars of the respective Universities for the year 1920-21. After due notice from any one of the four Universities, the Minister may accept modifications of its courses for Specialist standing.

2. Honour degrees in Arts from other British Universities on courses which are deemed to be the equivalent of those prescribed in the calendars of the four Ontario Universities may be accepted for Specialist.

3. The courses shall extend over at least five years from Pass Matriculation or, as may be determined under the regulations of the University concerned, over four years from Honour Matriculation.

4. Candidates shall attend for at least two full academic years. Under the direction of the University they may substitute for one of those years, at least two Summer Sessions.

5. The standard for each year shall be that prescribed by the University for candidates taking Honour courses, with the additional provision that in the final Honour work of the department in which specialist standing is sought, the standard shall be at least Second Class Honours (sixty-six per cent.).

6. The Minister shall have authority to deal with any case not covered under the above. Each University shall submit to the Minister a recommendation on any case whose merits justify special consideration.

UNIVERSITY OF OXFORD

A student of this University who has completed two years of the course in Arts may be admitted to the status of a Junior Colonial Student at the University of Oxford, while a student who has completed three years, and has taken honours in the final examination or who has obtained second class honours in the Third or Fourth Year, may be admitted as a Senior Colonial Student. In each of these cases, on complying with certain conditions, a student may obtain his degree at Oxford in two years.

UNIVERSITY OF CAMBRIDGE

The University of Toronto is affiliated to the University of Cambridge and matriculated students who have passed the examinations of the First and Second Years are entitled to admission to the privileges of affiliation, which enable a student to take his degree at Cambridge without completing the full period of residence.

FEES

All University fees, as also the fees of students enrolled in University College, are payable at the Bursar's Office in the Main University Building, between the hours of ten and one o'clock, except on Saturday.

The College fees of students enrolled in Victoria College are payable to the Fees Clerk of that College.

The College fees of students enrolled in Trinity College or St. Michael's College are payable to the Bursar of the College.

I. UNIVERSITY FEES

Any student proceeding to a Bachelor's degree in the Faculty of Arts and enrolled in University College, or Victoria College, or Trinity College, or St. Michael's College, may attend the lectures of University professors and lecturers in the Faculty of Arts without payment of fees, except those imposed for laboratory supplies, but such students must register in the University.

AD EUNDEM STATUM FEES

For admission, by certificate, to Second Year.....	\$15 00
For admission ad eundem statum....	10.00

LIBRARY FEE

The annual fee.....	\$2.00
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Every student in attendance, proceeding to a Bachelor's degree in the Faculty of Arts, is required to pay at the time of the entry of his name with the Registrar the annual library fee.

No occasional or graduate student shall be admitted to the library save upon the payment of the annual fee.

CHARGES FOR LABORATORY SUPPLIES

Charges for supplies shall include laboratory materials and instruments used by or for the student, and ordinary wear and tear of instruments, but not charges for waste, neglect and breakage, which are to be met out of a deposit to be fixed by the Professor

The annual supply charges for a student shall be according to the following table in which for convenient reference, the college fees for each year of the various courses are also included, reference being made to the annual fee if paid in October, and not by instalments, for the details of which see pages 43 and 44.

COURSES.

	ON PROBATION		FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
	COLLEGE REGISTRATION	LABORATORY SUPPLIES	COLLEGE REGISTRATION	LABORATORY SUPPLIES	COLLEGE REGISTRATION	LABORATORY SUPPLIES	COLLEGE REGISTRATION	LABORATORY SUPPLIES	COLLEGE REGISTRATION	LABORATORY SUPPLIES
1 Pass Course.....	45		40	..	40	..	40	5	40	5
2 Philosophy	45		40	..	40	..	40	3	40	3
3 Psychology	45	5	40	5	40	8	40	8	35	10
4 Commerce and Finance.....	45		40		40	3	40	3	40	3
5 Mathematics	45	3	40	3	..					
6 Mathematics and Physics	45	3	40	3	40	5	40	8	40	10
7 Physics	45	5	40	5	40	8	40	8	35	10
8 Astronomy and Physics	45		40	..	..	9	35	12	35	22
9 Biology	45	5	40	5	40	6	35	10	30	20
10 Physiology and Biochemistry	45	5	40	5	40	6	35	10	30	20
11 Biological and Medical Sciences	45	5	40	5	40	5	35	13	35	10
12 Chemistry and Mineralogy I and Chemistry	45	5	40	5	40	5	40	4	40	3
13 Chemistry and Mineralogy II	45	5	40	5	40	9	40	3	30	3
14 Geology and Mineralogy	45	5	40	5	40	11	35	15	30	20
15 Household Science and Household Economics.....	45	5	40	5	40	9	35	14	30	20
16 Science for Teachers.....	45	5	40	5	40	9	35	14	30	20
17 Any other Course.....	45	..	40	..	40	..	40	..	40	

1 The Laboratory Supply fee in the Third and Fourth Years is required only from those students who are taking the Household Science option.

2 The Laboratory Supply fee is not required from students of St. Michael's College.

3 The Laboratory Supply fee is required of students taking a Science as a Pass subject.

4 The fees for the Faculty of Medicine are not included

5 The fees for Drawing and Assaying are not included

6 At present these courses are Classics, Greek and Hebrew, Oriental Languages (Greek Option), French Greek and Latin, Modern Languages, English and History, Modern History, Political Science, Philosophy English and History.

HART HOUSE AND THE STUDENTS ADMINISTRATIVE COUNCIL

The annual fee..... \$11 00

Every male student in attendance, proceeding to a Bachelor's degree in the Faculty of Arts, is required to pay to the Bursar at the time of the entry of his name with the Registrar the annual fee of eleven dollars for the maintenance of Hart House and the Students Administrative Council.

WOMEN STUDENTS ADMINISTRATIVE COUNCIL FEE

The annual fee ... \$3 00

Every woman student proceeding to a Bachelor's degree in the Faculty of Arts, is required to pay to the Bursar at the time of the entry of her name with the Registrar the annual fee of three dollars for the maintenance of the Women Students Administrative Council

PHYSICAL TRAINING FEE

The annual fee .. \$5.00

Every male student in attendance, proceeding to a Bachelor's degree in the Faculty of Arts, is required to pay to the Bursar the annual Physical Training fee of \$5 00 at the opening of each session in which Physical Training is compulsory for that student.

EXAMINATION FEES

Students proceeding regularly to the B. A. degree.

For the June Senior Matriculation or January Supplemental Examination.....\$15 00

For each examination other than June and January..... 10.00

For each Supplemental examination 10 00

Teachers' Course, Occasional and Summer Session Students.

For examination in one subject of any year, each..... 5 00

Maximum fee..... 10.00

A candidate who fails to pay his University fees on or before the fifteenth of March—the last day for receiving fees prior to the May examination—must pay an additional fee of one dollar.

A candidate who fails to send his application for examination by the day appointed for the receipt of such applications must pay an additional fee of one dollar.

DEGREE FEES

For the degree of B.A.\$10 00

For admission ad eundem gradum (B.A.)..... 20.00

MISCELLANEOUS FEES

For certificate of honour..... \$1.00

The fee for admission *ad eundem statum*, or for dispensation from attendance upon lectures, or for certificates of honour, must be paid at the time of application.

A candidate who fails to pay his University fees on or before the fifteenth of March—the last day for receiving fees prior to the May examination—must pay an additional fee of one dollar.

II. COLLEGE FEES

A graduate in Arts, who during his undergraduate course, was enrolled in either University College, or Victoria College, or Trinity College, or St. Michael's College, may attend lectures free in the college in which he was so enrolled.

Every student proceeding to the degree of Bachelor of Arts shall, on each year's enrolment in University College, or Victoria College, or Trinity College, or St. Michael's College, pay an enrolment fee according to the following table, which fee shall include all instruction for which fees are chargeable except laboratory supply charges and library fees:—

TABLE OF FEES

FIRST YEAR

Any course, if paid in full in October except for students on probation.....	\$40.00
By instalments:—	
First instalment, if paid in October.....	20.00
Second instalment, if paid in January.....	21.00
Students on probation—Any course, if paid in full in October	45.00
By instalments:—	
First instalment, if paid in October.....	23.00
Second instalment, if paid in January.....	23.00

SECOND YEAR

Any course, if paid in full in October.....	40.00
By instalments:—	
First instalment, if paid in October.....	20.00
Second instalment, if paid in January.....	21.00

THIRD YEAR

Biology, or Physiology and Biochemistry, or Biological and Medical Sciences, or Chemistry and Mineralogy I, or Chemistry, or Household Science, or Household Economics, or Science for Teachers.	
If paid in full in October.....	35.00
By instalments:—	
First instalment, if paid in October.....	18.00
Second instalment, if paid in January.....	18.00

Any other course, if paid in full in October.....	40.00
By instalments:—	
First instalment, if paid in October.....	20.00
Second instalment, if paid in January.....	21 00

FOURTH YEAR

Psychology, <i>or</i> Physics, <i>or</i> Astronomy and Physics, <i>or</i> Chemistry and Mineralogy I, <i>or</i> Chemistry.	
If paid in full in October.....	35 00
By instalments:—	
First instalment, if paid in October.....	\$18.00
Second instalment, if paid in January.....	18.00
Biology, <i>or</i> Physiology and Biochemistry, <i>or</i> Biological and Medical Sciences, <i>or</i> Household Science, <i>or</i> Household Economics, <i>or</i> Science for Teachers.	
If paid in full in October.....	30.00
By instalments:—	
First instalment, if paid in October.....	15 00
Second instalment, if paid in January.....	16.00
Any other course, if paid in full in October.....	40.00
By instalments:—	
First instalment, if paid in October.....	20.00
Second instalment, if paid in January.....	21.00

ARTS AND FORESTRY

First, second, third, fourth, fifth and sixth years. Annual fee, including tuition, library, laboratory supply and one annual examination (the College fee in each of the first, second and third years is \$30):—	
If paid in full in October.....	70.00
By instalments:—	
First instalment, if paid in October.....	35.00
Second instalment, if paid in January.....	36 00

COURSE IN COMMERCE

First, second, third and fourth years. Annual fee, including tuition, library and one annual examination (the College fee in each of the first, second, third and fourth years is \$30):—	
If paid in full in October.....	80.00
By instalments:—	
First instalment, if paid in October.....	40.00
Second instalment, if paid in January.....	41.00

All the above fees are payable in advance. After October 31st, a penalty of \$1.00 per month will be imposed until the whole amount is paid. In the case of payment by instalments the same rule as to penalty will apply. A student will not be admitted to any of the University lectures or laboratories who is in arrears for his fees.

The annual enrolment fee of a matriculated student taking under the regulations more than one honour course shall be \$40 only.

The enrolment fee of a matriculated student attending lectures for one term shall be \$20.

The enrolment fee for students receiving dispensation from attendance upon lectures in University College, or Victoria College, or Trinity College, or St. Michael's College, shall be \$5 for each term, in addition to the University fee of \$5. The payment of these fees entitles the student to supervision of "term work" prescribed in connection with his course.

UNIVERSITY COLLEGE LITERARY AND ATHLETIC SOCIETY FEE

The annual fee. \$2.00

Every male student registered in University College and proceeding to a degree shall pay to the Bursar at the opening of the session an annual fee of \$2 for the maintenance of the University College Literary and Athletic Society.

UNIVERSITY COLLEGE WOMEN'S UNION

The annual fee. \$4 00

Every woman student registered in University College and proceeding to a Bachelor's degree is required to pay to the Bursar at the time of the entry of her name with the Registrar, the annual fee of four dollars for the maintenance of the Women's Union. A reduction will be made (a) in the case of those University College students who have paid four dollars for instruction in Athletics, and (b) in the case of graduates, and in these two cases the fee for the privileges of the Union will be reduced to three dollars.

III. FEES FOR OCCASIONAL STUDENTS, TEACHERS' COURSE

"A course in laboratory work" means the continuous course of instruction in laboratory or practical work offered to students in any one year in any of the subjects in which laboratory work is or may be prescribed.

"A course of lectures" means the continuous course of instruction offered in any one year in any of the subjects in which instruction is or may be given.

Laboratory fees are divided into (a) Fees for practical instruction in the laboratory, (b) Charges for supplies, which are the same as for students proceeding to the degree. (See page 41).

The payment of fees shall not entitle any occasional student to be admitted to the laboratory work of a later year without having taken that of the earlier year or years, unless this requirement is dispensed with by the Council of the Faculty on the recommendation of the Professor.

The annual fee for an occasional student attending a course, or partial course, of lectures shall be as follows:—

TUITION FEES	For the For the	
	Session	Term
For a course in any one subject	\$10 00	\$5 00
For a course in more than one subject, each subject.....	9.00	5 00
Maximum Fee...	45 00	23 00

EXAMINATION FEES

For examination in one subject of any year, each.....	\$5.00
Maximum examination fee.....	10.00

All instruction fees are payable strictly in advance.

PRIZES, MEDALS, SCHOLARSHIPS AND FELLOWSHIPS

No candidate will be permitted to hold more than one scholarship, but any one who would, but for this provision, have been entitled to a second scholarship, will have his name published in the lists.

All undergraduate scholars must sign a declaration of intention to proceed to a degree in Arts in this University, and must attend lectures in one of the Colleges for the academic year immediately following such examination. The Senate, however, on the recommendation of the Faculty, may, upon satisfactory reasons being shown, permit such scholar to postpone attendance upon lectures for a year. If at the end of the year a further postponement is necessary, special application must again be made. In every such case the payment of the scholarship will likewise be postponed. The scholarships are paid in three instalments—on the twentieth of November, the twentieth of January and the twentieth of March; and before each payment a scholar is required to secure from the Registrar's Office a certificate of attendance upon lectures to be signed by two senior members of the staff.

No prize, scholarship or medal will be awarded to any candidate who has been placed lower than the first class in the department to which the prize, scholarship or medal is attached.

When the letter "U" is prefixed, the award is made by the Senate of the University on the recommendation of the Council of the Faculty as the result of competition open to the students of all the Colleges. In all other cases the letter indicates the governing body by which the award is made:—the Council of University College by the letter "C", the Senate of Victoria College by the letter "V", the Corporation of Trinity College by the letter "T", and the Council of St. Michael's College by the letter "M".

With the exception of the Jean Balmer Scholarship in Science of the First Year, all honours awarded by the Senate on the recommendation of the Faculty are open to the students of all the Colleges.

The competition for a College scholarship, medal or prize is confined to the students registered in that College and shall be subject to such regulations as the College may from time to time determine.

PRIZES

FIRST YEAR

ITALIAN.

U. The Italian Prize, the gift of the Minister of Foreign Affairs for the Kingdom of Italy

Awarded in 1921 to Miss J. F. Struthers.

ENGLISH.

- V. The Class of 1902 Prize, the gift of Professor C. E. Auger, B.A., of the value of \$10 to the student ranking highest in English of the Pass Course.

Awarded in 1920 to F. G. Ward; 1921, Miss R. J. Stewart.

- M. A prize of the value of \$10 to the student ranking highest in English of the Pass Course.

Awarded in 1920 to E. P. Butler, 1921, L. F. Barnett.

ETHICS.

- U. The Tracy Prize, of the value of \$10, the gift of Professor F. Tracy, to the student who, obtaining First Class Honours in the Philosophy English and History Course, ranks highest in Ethics.

SECOND YEAR

ITALIAN.

- U. The Italian Prize, the gift of the Minister of Foreign Affairs for the Kingdom of Italy.

Awarded in 1921 to Miss L. M. Latchford.

ENGLISH.

- C. The Alumnae Prize, the gift of the Toronto Alumnae, of the value of \$10 in books, to the student ranking highest in English Composition
Awarded in 1920 to Miss H. M. Cochrane; 1921, E. W. McInnis.

- M. A Prize of the value of \$10, to the student ranking highest in English of the Pass Course.

Awarded in 1920 to R. J. Dobell; 1921, Miss A. B. Ballard.

- V. The Webster Prize, the gift of the late J. G. Hodgins, Esq., M.A., LL.D., I.S.O., of the value of \$10, to the student ranking highest in English of the Pass Course.

Awarded in 1920 to R. de la P. Stewart; 1921, F. G. Ward.

HEBREW.

- V. The Robert Johnston Prize, the gift of the Rev. Professor J. F. McLaughlin, B.A., D.D., of the value of \$15, to the student ranking highest in Hebrew of the Pass Course.

Awarded in 1920 to H. M. Wright; 1921, T. C. Wilkinson.

PHILOSOPHY.

- M. The Kernahan Prize of the value of \$25, the gift of W. T. Kernahan, Esq., in memory of the late Rev. Gregory Kernahan, to the student ranking first in the examinations in Philosophy.

Awarded in 1920 to L. J. Stock; 1921, L. A. Cleary.

FIRST AND SECOND YEARS

ENGLISH.

- V. Two prizes, of the value of \$10 each, will be awarded for the two best essays on a subject to be assigned by the Staff in the Department of

English. Neither of these prizes will be granted twice to the same student.

Awarded in 1920 to L. H. Miller and Miss M. V. Ray; 1921, F. G. Ward and Miss A. E. Howard.

THIRD YEAR

ITALIAN.

- U. The Italian Prize, the gift of the Minister of Foreign Affairs for the Kingdom of Italy.

No award in 1921.

ENGLISH.

- V. The Hodgins Prize, the gift of the late J. G. Hodgins, Esq., M.A., LL.D., I.S.O., of the value of \$12, to the student ranking highest in English of the Pass Course.

No award in 1920 and in 1921.

- M. The Dockeray Prize of the value of \$25, to the student ranking highest in English of the Pass Course.

Awarded in 1920 to T. S. Melady, 1921, Miss M. A. Hannan.

ENGLISH BIBLE.

- V. The Massey Bursaries, established by the late Hart A. Massey, Esq., one of \$25 and one of \$15, to the students ranking first and second at the examination in the English Bible.

Awarded in 1920 to Miss G. L. Rutherford and E. M. Cook; 1921, Miss F. D. Daly and Miss M. J. Chappell.

PHILOSOPHY.

- M. The Hanrahan Prize of the value of \$25, the gift of W. T. Kernahan, Esq., in memory of the late John Hanrahan, Esq., to the student ranking first in the examinations in Philosophy.

No award in 1920; 1921, P. J. Bart, R. J. Dobell and L. J. Stock, *aeq.*

HOUSEHOLD SCIENCE.

- U. The Anna Howe Reeve Prize of the value of \$25, the gift of Dr. R. A. Reeve, "in memory of a true helpmate, whose unselfishness enabled the donor the better to discharge his duty to his Alma Mater". The Committee of Award consists of the President of the University, Professor Laird and Professor Benson

Awarded in 1920 to Miss M. G. Webster; 1921, Miss K. E. Bennett.

FOURTH YEAR

ITALIAN.

- U. The Italian Prize, the gift of the Minister of Foreign Affairs for the Kingdom of Italy.

Awarded in 1921 to Miss G. M. Cook.

ENGLISH

- M. The Dockeray Prize, of the value of \$25, to the student ranking highest in English of the Pass Course.

Awarded in 1920 to Miss F. T. Ronan; 1921, A. T. Leacy.

FRENCH.

- U. The Quebec Bonne Entente Prize, the proceeds from \$1,000, the gift of the delegates from the Province of Quebec to the Bonne Entente Movement

The Prize shall be awarded on the results of (a) an essay in French written on one of a number of subjects in the Examination Hall, (b) translation from English into French, (c) an oral test in which regard shall be had especially to facility in speaking, understanding and pronouncing French. The Prize shall be in money, and it is suggested that it be expended in acquiring a more perfect knowledge of French.

Awarded in 1920 to Miss H. M. McCrimmon; 1921, Miss G. M. Cook.

CANADIAN CONSTITUTIONAL HISTORY.

- V. The Robertson Prize, the gift of W. J. Robertson, Esq., B A., LL.B., of the value of \$10, to the student ranking highest in Canadian Constitutional History.

Awarded in 1920 to H. D. Lang; 1921, M. J. Ayearst.

ETHICS.

- C. The Tracy Prize, of the value of \$10, the gift of Professor F. Tracy, to the student who, obtaining Grade A in the Pass Course, ranks highest in Pass Ethics.

T. CLASSICS.

The Prince of Wales' Prize, \$18, for the highest first class honours in Classics.

Awarded in 1920 to J. B. West; 1921, C. E. Phillips and J. Lowe, *aeq.*

T. MATHEMATICS.

The Prince of Wales' Prize, \$18, for the highest first class honours in Mathematics.

Awarded in 1920 to P. Lowe; 1921, no award.

NATURAL SCIENCE.

- T. A prize of \$15 for the highest first class honours in any graduating department of the Natural and Physical Sciences.

No award in 1920; 1921, Miss R. M. Nevill.

- M. A prize of the value of \$10 to the student ranking highest in Science (Natural and Physical).

No award in 1920 and in 1921.

MODERN LANGUAGES.

- T. A prize of \$15 for the highest first class honours in Modern Languages.

No award in 1920 and in 1921.

ENGLISH AND HISTORY

- T. A prize of \$15 for the highest first class honours in English and History.
No award in 1920 and in 1921.

MODERN HISTORY.

- T. A Prize of \$15 for the highest first class honours in Modern History.
No award in 1920 and in 1921.

PHILOSOPHY.

- T. A Prize of \$15 for the highest first class honours in Philosophy.
No award in 1920 and in 1921.
- M. The M. J. O'Brien Prize, of the value of \$100, to the student ranking highest in the Department of Philosophy (St. Michael's College).
Awarded in 1920 to J. L. G. Keogh; 1921, no award.

POLITICAL SCIENCE.

- T. A Prize of \$15 for the highest first class honours in Political Science.
Awarded in 1920 to D. A. C. Martin; 1921, no award.

COMMERCE AND FINANCE

- T. A Prize of \$15 for the highest first class honours in Commerce and Finance.
Awarded in 1920 to T. Oakley; 1921, no award.

PASS COURSE.

- T. A Prize of \$15 for the highest ranking in Grade A Standing in the Pass Course.
No award in 1920 and in 1921.

THIRD AND FOURTH YEARS

BIBLICAL GREEK.

- V. The Wallbridge Prize, the gift of the late A. F. Wallbridge, Esq., of the value of \$10, to the student ranking first in Life and Letters of St. Paul.
Awarded in 1920 to H. C. Wolfrain; 1921, C. L. Wood.

NEW TESTAMENT INTRODUCTION.

- V. The Joy Wallace Prize, endowed by the Rev. Professor F. H. Wallace, M.A., D.D., of the value of \$15, to the student ranking first in New Testament Introduction and Exegesis.
Awarded in 1920 to J. H. Garden; 1921, W. F. Monroe.

ALL THE YEARS

ENGLISH.

- V. The Lily Denton Keys Prize, of the annual value of \$25, endowed by Mr. Norman A. Keys, B.A., as a memorial for his wife, Lily Denton, B.A., is open for competition among all the Arts undergraduates of Victoria College. The subject of the essay shall be "The Present Day Novel".
Awarded in 1920 to H. D. Langford; 1921, D. G. Creighton.

FRENCH COMPOSITION.

- C. The Squair French Prose Prize, of the annual value of \$10, endowed by Professor Squair, is open for competition among students in attendance upon lectures in University College. The award shall be made annually by the Council of University College on the recommendation of the teaching staff in French. The books awarded are to be chosen by the winner after consultation with the staff in French.
Awarded in 1920 to Miss K. M. Asman and Miss H. C. Kirkwood, *aeq* 1921, R. A. Allen.

NEW TESTAMENT HISTORY

- V. The Ryerson Prize, the gift of the late J. G. Hodgins, Esq., M.A., LL.D., I.S.O., of the value of \$12., to the student ranking first in Synoptic Gospels.
Awarded in 1920 to J. E. Mitchell; 1921, J. W. Button.

ORATORY.

- V. The Michael Fawcett Prize of \$40 is awarded annually for "the best extempore oration" on a subject to be assigned at the commencement of each college year by the trustees of the fund. This prize is open to all candidates on probation for the ministry of the Methodist Church. No award in 1920; 1921, W. J. H. Smyth.

GREEK.

- T. A Prize of \$20 for Greek Prose.
No award in 1920 and in 1921.

LATIN.

- T. A Prize of \$20 for Latin Verse
No award in 1920 and in 1921.
T. A Prize of \$20 for Latin Essay.
No award in 1920 and in 1921.

GREEK or LATIN.

- T. A Prize of \$20 for an essay in English on some subject of classical study.
No award in 1920 and in 1921.

FRENCH.

- T. A Prize of \$20 for a French Essay.
No award in 1921.

ENGLISH.

- T. A Prize of \$20 for an English Essay.
No award in 1920 and in 1921.
T. A Prize of \$20 for an English Poem.
No award in 1920; 1921, Miss D. M. Sanders, P. A. Child, *proxime accessit*.

The subjects of these Trinity College Prizes will be posted on the College notice board.

HELLENISTIC GREEK:

- V. The Driver Prize of \$10 is awarded annually on the result of an examination held in September on the Septuagint and allied versions. The prize is to be open to undergraduate and graduate students.
No award in 1920 and in 1921.

MEDALS

SECOND YEAR

THE PASS COURSE.

- U. The Governor-General's Silver Medal will be awarded to that candidate who, taking not less than seventy-five per cent. in this examination, takes also the highest aggregate of marks when the results of the First and Second Year examinations in this course are added together, such examinations having been taken in two consecutive calendar years. The discretion of the examiners, as in the examination for the Governor-General's Gold Medal, shall apply also to this examination.
No award in 1920; 1921, Miss D. L. Agnew.

FOURTH YEAR

GENERAL PROFICIENCY.

- U. The Governor-General's Gold Medal is intended for the encouragement of the study of English in those departments in which English is not an integral portion of the work of the third and fourth years and will be awarded to that candidate who, taking not less than sixty-six per cent. in English (as defined below), and not less than seventy-five per cent. in some one of the following honour departments:—(a) Classics, (b) Greek and Hebrew, (c) Oriental Languages, (d) Modern History, (e) Political Science, (f) Commerce and Finance, (g) Philosophy, (h) Mathematics, (i) Physics, (j) Biology, (k) Physiology and Biochemistry, (l) Biological and Medical Sciences, (m) Chemistry and Mineralogy, (n) Chemistry, (o) Geology and Mineralogy, (p) Household Science, (q) Household Economics (r) Science for Teachers—shall also take the best aggregate mark in English and the Honour Department.

English shall be understood to mean only the papers based on English Courses 4a, 4b and 4c. The essays prescribed for Honour students are not taken into account in this award.

In order to obviate any unfairness arising from a different system of marking in different departments, the principle shall always be adopted of raising the marks of the best candidate in the first class of each department to the maximum, and those of the others in proportion, unless the examiners of any department report that the marks of the best candidate in their department are not of sufficient merit to be so raised.

The Registrar shall publish not only the name of the successful candidate,

but also the names of all candidates who, by satisfying the above conditions, are eligible for the award.

Awarded in 1920 to J. N. D. Bush, Miss M. A. Dickinson *proxime accessit*; 1921, T. R. S. Broughton.

- V. The Prince of Wales' Gold Medal, endowed by His late Majesty King Edward VII, will be awarded to the student who ranks first in Grade A Standing in the Pass Course.

No award in 1920; 1921, J. W. Button.

- V. The Prince of Wales' Silver Medal, endowed by His late Majesty King Edward VII, will be awarded to the student who ranks second in Grade A Standing in the Pass Course.

No award in 1920 and in 1921.

- V. The Governor-General's Silver Medal will be awarded to the candidate standing highest in Honour Modern English of the Fourth Year examination, provided he has taken First or Second Class in his Honour Department or Grade A Standing in the Pass Course at graduation, First Class Honour men having the preference and provided that this English is not an integral portion of his course. In case such a candidate has already received the Governor-General's Gold Medal, the next in rank shall be eligible.

Honour Modern English shall be understood to mean only the papers based on English Courses 4a, 4b and 4c. The essays prescribed for Honour students are not taken into account in this award.

No award in 1920, J. N. D. Bush (mention); no award in 1921, T. R. S. Broughton (mention).

- T. The Governor-General's Silver Medal will be awarded to the student taking the best degree, provided that First Class Honours shall have been obtained in an Honour Course or Grade A Standing in the Pass Course.

Awarded in 1920 to P. Lowe; 1921, Miss R. M. Nevill.

CLASSICS.

- C. The McCaul Medal (Gold), established in 1886 by the late W. H. C. Kerr, M.A., Gold Medallist in Classics of 1859, in memory of the Rev. John McCaul, LL.D., First Professor of Classics, and First President of University College. It was presented by Mr. Kerr from 1886 up to his death, and from 1891 to 1894, after his death, by his widow. Since then the donors have been in 1895 John Hoskin, K.C., LL.D., Chairman of the Board of Trustees 1906-1910; in 1896 Nicol Kingsmill, M.A., K.C., Classical Medallist of 1856; in 1897, A. M. Crombie, Esq., of Montreal, in memory of his brothers Ernestus Crombie, M.A., Gold Medallist in Classics of 1854, and Marcellus Crombie, M.A., LL.B., Gold Medallist in Classics of 1857; in 1898 and 1899 William Dale, M.A., Gold Medallist in Classics of 1871; in 1900 the late John Fletcher, M.A., LL.D., Gold Medallist in Classics of 1872, and Maurice Hutton, M.A., LL.D.; in 1901 Adam Carruthers, M.A.,

Gold Medallist in Classics of 1880; in 1902 W. S. Milner, M.A., Gold Medallist in Classics of 1881; in 1903 the late G. W. Johnston, Ph.D.; in 1904-1922 the Hon. Sir J. M. Gibson, M.A., LL.D., by whom it will be presented in 1923.

The winners of the McCaul Medal have been as follows:—

1886, W. P. Mustard, Ph.D.; 1887, E. O. Slater, 1888, H. J. Crawford; 1889, H. J. Cody, D.D., LL.D.; 1890, James Colling; 1891, C. A. Stuart; 1892, F. W. Shipley, Ph.D.; 1893, F. B. R. Hellems, Ph.D.; 1894, J. H. Brown (*ob.*); 1895, W. T. F. Tamblyn, Ph.D.; 1896, Donald McFayden; 1897, R. O. Joliffe; 1898, Miss Florence E. Kirkwood; 1899, W. H. Alexander, Ph.D.; 1900, Miss Landon Wright; 1901, E. J. Kylie (*ob.*); 1902, E. H. Oliver, Ph.D.; 1903, A. G. Brown; 1904, W. H. Tackaberry (*ob.*); 1905, S. A. Cudmore; 1906, R. W. Hart; 1907, W. A. Rae; 1908, Miss C. M. Knight; 1909, A. G. Hooper; 1910, no award, 1911, C. N. Cochrane; 1912, C. H. Carruthers; 1913, H. V. Wrong (*ob.*); 1914, D. Breslove, 1915, H. R. Kemp; 1916, W. M. Hugill, 1917, Miss E. A. Sinclair; 1918, no award. 1919, Miss E. Harris; 1920, Miss M. A. Dickinson; 1921, H. L. Tracy.

V. The Edward Wilson Gold Medal, founded by the late Bishop Edward Wilson in memory of his son Edward Wilson

Awarded in 1920 to J. N. D. Bush; 1921, T. R. S. Broughton.

V. The S. H. Janes Silver Medal

No award in 1920 and in 1921.

MODERN LANGUAGES

C. The Governor-General's Silver Medal

Awarded in 1920 to G. H. Unwin; 1921, R. A. Allen and Miss G. M. Cook, *aeq.*

V. The J. J. Maclaren Gold Medal.

Awarded in 1920 to Miss E. M. Thornton; 1921, Miss F. E. Rodman.

V. The S. H. Janes Silver Medal

No award in 1920; 1921, Miss M. H. R. Powers.

ENGLISH (4a, 4b, 4d).

V. The Reginald Heber Manning Jolliffe Gold Medal, founded by his mother, in memory of Lieutenant R. H. M. Jolliffe, who fell at Vimy Ridge, April 9th, 1916.

POLITICAL SCIENCE.

V. The J. Reginald Adams Gold Medal, established by Rev. and Mrs. G. K. B. Adams as a memorial of their son Lieut. J. Reginald Adams who died of wounds at Etaples, France, November 26th, 1917.

Awarded in 1920 to E. H. McKinney; 1921, no award.

V. The J. Reginald Adams Silver Medal.

No award in 1920 and in 1921.

PHILOSOPHY.

V. The E. J. Sanford Gold Medal.

Awarded in 1920 to W. H. Moss; 1921, no award.

- V. The S. H. Janes Silver Medal.
No award in 1920 and in 1921.

MATHEMATICS AND PHYSICS.

- V. The S. H. Janes Silver Medal.
Awarded in 1920 to G. M. Shrum; 1921, L. W. Rentner.

PHYSICS.

- U. The James Loudon Gold Medal, the gift of the local Committee for The Toronto Meeting of the American Association for the Advancement of Science. Awarded to the candidate ranking highest in first class honours.

Awarded in 1920 to J. A. Sonley; 1921, L. W. Rentner.

ASTRONOMY AND PHYSICS.

- U. The Royal Astronomical Society of Canada Gold Medal, awarded to the candidate obtaining the first place in first class honours.
No award in 1920 and in 1921.

NATURAL SCIENCE.

- V. The G. A. Cox Gold Medal, the gift of Mr Herbert C. Cox.
Awarded in 1920 to Miss E. V. Eastcott; 1921, A. E. R. Westman.

- V. The S. H. Janes Silver Medal
No award in 1920; 1921, H. D. Brown.

ALL THE YEARS

NATURAL SCIENCE.

- U. The Cawthorne Medal, the gift of F. T. Shutt, M.A., awarded on the recommendation of the Natural Science Association.
No award in 1920 and in 1921.

SCHOLARSHIPS AND FELLOWSHIPS

FIRST YEAR

CLASSICS.

- C. The Moss Scholarship, of the value of \$60, founded by subscription in honour of the late Hon. Chief Justice Thomas Moss.
Awarded in 1920 to L. A. MacKay; 1921, no award.

- V. The Robertson Scholarship, of the value of \$50, the gift of Professor J. C. Robertson, M.A.
Awarded in 1920 to Miss R. V. Kendrick; 1921, Miss I. F. Irwin.

SEMITIC LANGUAGES or GREEK AND HEBREW.

- T. The Pettit Scholarship, of the value of \$40, with free tuition for three years, provided the scholar obtains first class honours at subsequent examinations.

Awarded in 1920 to J. Lowe; 1921, no award.

ORIENTAL LANGUAGES.

- V. The A. P. Misener Scholarship of the value of \$25, the gift of the Rev W. A. Potter, M.A., B.D., in memory of the late Rev. Professor Misener. Awarded in 1920 to F. G. Ward; 1921, no award.

MODERN LANGUAGES.

- C. The Edward Blake Scholarship, of the value of \$60, the gift of the late Hon. Edward Blake, formerly Chancellor of the University. Awarded in 1920 to Miss K. R. Manson; 1921, Miss K. M. Halford and Miss M. Spence, *aeq.*

POLITICAL SCIENCE.

- U. The Bankers' Scholarship, of the value of \$70, the gift of the Bank of Toronto, the Canadian Bank of Commerce, the Dominion, Imperial, Standard, and Traders Banks, and the Union Bank of Lower Canada. Only such candidates are eligible as have passed the examination of the First Year and as may undertake to proceed to graduation in the Department of Political Science. A special examination on some special text-book of history or finance will be held at the time of the Supplemental examination in September. This scholarship is not tenable with any other.

The prescribed text-books are as follows:—

1922: LAYTON, *An Introduction to the Study of Prices.*

1923: CLAY, *Economics for the General Reader.*

Awarded in 1920 to Miss H. M. Dean; 1921, no award.

MATHEMATICS AND PHYSICS

- U. The Alexander T. Fulton Scholarship, of the value of \$60, the gift of the late Alexander T. Fulton, Esq. Awarded in 1920 to M. S. Bell; 1921, F. B. Relyea.

NATURAL AND PHYSICAL SCIENCES.

- U. The First Alexander T. Fulton Scholarship, of the value of \$50, the gift of the late Alexander T. Fulton, Esq. Awarded in 1920 to W. J. Clapson; 1921, O. C. H. Kitching.
- U. The Second Alexander T. Fulton Scholarship, of the value of \$40, the gift of the late Alexander T. Fulton, Esq. Awarded in 1921 to W. S. Keith.
- U. The Third Alexander T. Fulton Scholarship, of the value of \$30, the gift of the late Alexander T. Fulton, Esq. The Second and Third Scholarships were awarded in 1920 to G. C. Kelly and C. W. Sweitzer, *aeq.* Awarded in 1921 to H. R. Hugill.
- U. The Jean Balmer Scholarship in Science, of the value of \$50, the gift of Mrs. Jane Balmer in memory of her daughter Miss Jean Balmer, B.A. and in fulfilment of the wish expressed in the will of another daughter Miss Eliza M. Balmer, B.A.

This Scholarship is open for competition only to students registered in University College.

Awarded in 1920 to W. J. Clapson; 1921, W. S. Keith.

PASS COURSE.

- M. The Knights of Columbus Scholarships, of the value of \$25 each, with free tuition for one year, to the four students ranking highest at the examination of the First Year, on condition that such students in the following session enter Honour Courses of either the First or Second Year.

Awarded in 1921 to L. F. Barnett, W. Gavard, G. B. Keogh and Miss D. Fleury.

SECOND YEAR

CLASSICS.

- C. The William Mulock Scholarship, of the value of \$60, the gift of the Hon. Sir William Mulock, M.A., LL.D., for many years Vice-Chancellor of the University.

Awarded in 1920 to J. E. A. Johnstone; 1921, L. A. MacKay.

- T. The Hart-Moorhouse, of the value of \$40, the gift of Alumni, commemorating Messrs. W. Hart and A. C. Moorhouse, who were drowned in their graduating year, 1906, to the student ranking highest in first class honours in Classics, or, failing these, in English and History with the classical option.

Awarded in 1920 to J. Lowe; 1921, no award.

MODERN LANGUAGES.

- C. The George Brown Scholarship, of the value of \$60, founded in honour of the late Hon. George Brown.

Awarded in 1920 to Miss E. A. J. Shaw; 1921, H. R. Sneddon.

FRENCH.

- V. The Essa Van Dusen Dafoe Scholarship, of the value of \$50, the gift of Dr. W. A. Dafoe, in memory of his wife, Essa Van Dusen, to be awarded annually to the student standing highest in a special examination in both oral and written French to be held in the Easter Term.

Awarded in 1920 to L. H. Miller, 1921, H. W. Hilborn.

ORIENTAL LANGUAGES.

- V. A Scholarship of \$50, the gift of the Rev. Professor J. F. McLaughlin B.A., D.D., and others.

No award in 1920; 1921, F. G. Ward.

PHILOSOPHY.

- U. The John Macdonald Scholarship, of the value of \$50, the gift of the late Hon. John Macdonald.

Awarded in 1920 to W. M. Mustard; 1921, S. J. Mathers.

- T. A Scholarship in Mental and Moral Philosophy, which entitles the holder to free tuition in the Third Year and in the Fourth Year, if he obtains first class honours in the Second and Third Year.
No award in 1920, 1921, J. S. D. Nation.

POLITICAL SCIENCE.

- U. The First Alexander Mackenzie Scholarship, of the value of \$75, the gift of the friends of the late Hon. Alexander Mackenzie.
Awarded in 1920 to R. Wood; 1921, C. P. Halliday.
- U. The Second Alexander Mackenzie Scholarship, of the value of \$50, the gift of the friends of the late Hon. Alexander Mackenzie.
Awarded in 1920 to G. G. Brown and R. de la P. Stewart, *aeq*; 1921, no award.
- T. A Scholarship in Political Science which entitles the holder to free tuition in the Third Year and in the Fourth Year, if he obtains first class honours in his Second and Third Year.
No award in 1920 and in 1921.

MATHEMATICS AND PHYSICS.

- U. The William Mulock Scholarship, of the value of \$60, the gift of the Hon. Sir William Mulock, M.A., LL.D., for many years Vice-Chancellor of the University.
Awarded in 1920 to Miss F. F. Halliday; 1921, J. P. Dandy.

PHYSICS.

- U. The Edward Blake Scholarship, of the value of \$45, the gift of the late Hon. Edward Blake, M.A., LL.D., ex-Chancellor of the University.
No award in 1920 and in 1921.

BIOLOGICAL AND MEDICAL SCIENCES.

- U. The Edward Blake Scholarship, of the value of \$45, the gift of the late Hon. Edward Blake, M.A., LL.D., ex-Chancellor of the University.
Awarded in 1920 to J. H. Couch; 1921, G. R. Balfour.
(1) BIOLOGY and (2) GEOLOGY AND MINERALOGY.

- U. The Edward Blake Scholarship, of the value of \$45, the gift of the late Hon. Edward Blake, M.A., LL.D., ex-Chancellor of the University.
No award in 1920 and in 1921.

CHEMISTRY AND MINERALOGY.

- U. The Edward Blake Scholarship, of the value of \$45, the gift of the late Hon. Edward Blake, M.A., LL.D., ex-Chancellor of the University.
Awarded in 1920 to F. L. Hutchison; 1921, no award.

In case one or more of the four foregoing scholarships is not awarded, the amount rendered available will be divided among the other scholars, but no award shall exceed \$60.

CHEMISTRY AND MINERALOGY.

- V. The James G. Burns Scholarship, of the value of \$50, endowed by the Rev. Dr. and Mrs. R. N. Burns as a memorial of their son Major James G. Burns, D.S.O., B.A., killed in action at Cambrai, France, September 28th, 1918.

THIRD YEAR

CLASSICS.

- C. The Moss Scholarship, of the value of \$60, founded by subscription in honour of the late Hon. Chief Justice Thomas Moss.
Awarded in 1920 to M. D. C. Tait; 1921, J. E. A. Johnstone.

MODERN LANGUAGES.

- C. The Julius Rossin Scholarship, of the value of \$60, the gift of the late Julius Rossin, M.A.
Awarded in 1920 to R. A. Allen; 1921, Miss D. L. Arthur.

ENGLISH AND HISTORY.

- V. The George D. Morse Scholarship, of the value of \$50, founded by the late Mrs. Elizabeth Morse.

ENGLISH (3a, 3b, 3d).

- V. The Reginald Heber Manning Jolliffe Scholarship, of the value of \$30, founded by his mother in memory of Lieutenant R. H. M. Jolliffe, who fell at Vimy Ridge, April 9th, 1916.
Awarded in 1921 to J. C. Eastcott.

PHILOSOPHY.

- C. The John Macdonald Scholarship, of the value of \$50, the gift of the late Hon. John Macdonald.
Awarded in 1920 to F. G. Lightbourne; 1921, W. M. Mustard.
V. The George John Blewett Scholarship, of the value of \$50, the gift of Mrs. G. J. Blewett in memory of the late Rev. Professor Blewett.
Awarded in 1920 to E. W. Jewitt; 1921, no award.

POLITICAL SCIENCE.

- U. The First Alexander Mackenzie Scholarship, of the value of \$75, the gift of the friends of the late Hon. Alexander Mackenzie.
Awarded in 1920 to C. M. Vining; 1921, W. G. Thomson.
U. The Second Alexander Mackenzie Scholarship, of the value of \$50, the gift of the friends of the late Hon. Alexander Mackenzie.
Awarded in 1920 to A. F. Annis; 1921, R. J. Wood.

MATHEMATICS AND PHYSICS.

- U. A Scholarship of the value of \$60, the gift of the Local Committee for the Toronto meeting of the American Association for the Advancement of Science. In awarding this scholarship, the theoretical and practical work in this department will be estimated in the proportion of three to one.
Awarded in 1920 to H. G. Smith; 1921, Miss F. F. Halliday.

MATHEMATICS AND PHYSICS, PHYSICS.

- U. The Ramsay Scholarship, of the value of \$50, the gift of the late Mr. William Ramsay, of Bowland, Scotland. The scholarship is open for competition to all students in the Third Year in the courses of (1) Physics and (2) Mathematics and Physics. The award is made to the

student who obtains the highest aggregate standing in experimental physics during the first three years of his course and who elects to proceed to the B A. Degree in Physics in his final year.
No award in 1920 and in 1921.

PHYSICS.

- U. A scholarship of the value of \$55, the gift of the Local Committee for the Toronto meeting of the American Association for the Advancement of Science
Awarded in 1920 to Miss M. F. Cale and W. C. H. McQuarrie. *aeg*, 1921, no award

BIOLOGICAL AND MEDICAL SCIENCES

- U. The Daniel Wilson Scholarship, of the value of \$30, the gift of the late William Christie, Esq
Awarded in 1920 to Miss E. H. Chant; 1921, J. H. Couch.

BIOLOGY.

- U. The Daniel Wilson Scholarship, of the value of \$30, the gift of the late William Christie, Esq.
Awarded in 1920 to N. B. Laughton, 1921, Miss K. M. Millar.

In case either of the two foregoing scholarships is not awarded, the amount rendered available will be given to the scholar in the other department.

CHEMISTRY AND MINERALOGY.

- U. The Daniel Wilson Scholarship, of the value of \$30, the gift of the late William Christie, Esq
Awarded in 1920 to W. G. Noble; 1921, no award.

GEOLOGY AND MINERALOGY

- U. The Daniel Wilson Scholarship, of the value of \$30, the gift of the late William Christie, Esq
Awarded in 1920 to H. F. Swann; 1921, no award.

In case either of the two foregoing scholarships is not awarded, the amount rendered available will be given to the scholar in the other department.

FOURTH YEAR

HONOUR COURSE

- T. The Jubilee Scholarship, of the value of \$120, tenable for two years, was founded by the Society for the Propagation of the Gospel, and is awarded yearly to the most deserving Bachelor of the Year who has obtained at least second class honours. On admission to the scholarship a declaration must be signed by the holder that it is his purpose to complete the Divinity Course in Trinity College and to present himself as a candidate for Holy Orders. Should he fail to do so, he will be held bound to refund to the College such proceeds of the scholarship as he shall have received.
Awarded in 1920 to P. W. Dawson; 1921, J. Lowe.

FIRST AND THIRD YEARS

The McClure Scholarship of \$45 will be awarded to the student of the First or Third Year Arts who takes the highest standing in First Year Hebrew at the University, and who is preparing for the study of Theology in Knox College.

In order to hold this scholarship a student must give attendance on the lectures of the session in which the scholarship is won, and must sign a declaration that it is his intention to enter the ministry of the Presbyterian Church in Canada, and to prosecute theological study in Knox College.

ALL THE YEARS

- V. An endowment of \$13,500, provided by a bequest of the late W. E. H. Massey, Esq., will furnish a number of additional scholarships which are awarded under the terms of the will in aid of deserving students.
- T. The late Ven. Archdeacon Nelles, of Brantford, left \$2,000 to Trinity College to be used for the assistance of students in Arts or Theology during their course in the College. Loans will be made from this fund to be repaid by the students after the completion of their College course. There are also other funds from which similar loans will be made.
- V. The Rowell Scholarships, one of \$30 and one of \$20, the gift of the Hon. N. W. Rowell, K.C., LL.D., and Mrs. Rowell, open to all students of Victoria College, will be awarded annually to the students ranking first and second in Church History.
Awarded in 1920 to C. L. Wood and J. E. Mitchell; 1921, J. E. R. Doxsee and J. G. Endicott.
- V. The Hamilton Fisk Biggar Scholarships, of the value of \$50 each, awarded on the results of the May examinations to the students standing first in the University in those courses, Pass or Honour, where no prizes or scholarships are now offered. Preference will be given to the students of the third year.
Awarded in 1920 to R. W. Hardy, T. R. S. Broughton, N. S. Clark, W. L. Swanson, A. E. R. Westman, Miss M. V. Ray, Miss N. A. Yeomans and L. V. Smith; 1921, S. N. F. Chant, Miss M. E. Craig, Miss M. B. R. Fawcett, R. E. Gosse, H. W. Hilborn, Miss H. G. McKay, and C. C. Oke.
- V. The Lincoln G. Hutton Scholarship of the value of \$100, the gift of the late Mr. and Mrs. F. Hutton in memory of their son Lieutenant Lincoln G. Hutton, who fell in action in France on December 18th, 1916.
Awarded in 1920 to J. N. D. Bush; 1921, F. G. Ward.
- U. The Khaki University and Y.M.C.A. Memorial Scholarship Fund, established by the Khaki University Committee. At the present time this fund is being used to make loans to returned-soldier students of the higher years. Applications for such loans should be made to the President of the University.

UNDERGRADUATE AND GRADUATE

U. THE ALL SOULS' HISTORICAL ESSAY PRIZE

1. The Prize shall be called The All Souls' Historical Essay Prize.
2. It shall be of the value of one hundred and fifty dollars
3. It shall be open to all undergraduate members of the University of Toronto, and to graduates who at the time of the awarding of the prize shall not have exceeded one year from the time of graduation.
4. It shall be awarded in every second year, beginning in 1910, and the subject shall be announced two years before the time of the award.
5. There shall be a choice of two subjects for the Essay—one to be taken from Ancient European History, and one from Mediæval or Modern European History.
6. The choice of subjects and the awarding of the prize shall be in the hands of an examining board—to consist of the President of the University of Toronto, the Professor of History in the University, and the Professor of Ancient History in University College, should any of these be unable to act, the remaining members of the Board shall be empowered to name a substitute.
7. The Essay shall involve research work of an original nature, and no particular books or courses shall be prescribed.
8. If the examiners judge any essay to be worthy, it shall be published at the expense of the University.
9. The examining board shall have power to prescribe limits as to the length of the essay, and to draw up additional regulations for the administration of the prize, provided always that sections 3, 5 and 7 of these regulations remain unchanged.
10. If no essay of sufficient merit be forthcoming it shall be in the power of the examiners to withhold the prize for that term, and to recommend that the money be devoted to whatever purpose they judge most fit to encourage historical research.

Essays must be sent to the Registrar of the University on or before April 1, 1924; they must be accompanied by a motto or pseudonym, and by another and separate envelope containing the name of the candidate, the name of his college, and the month and year of his matriculation. Candidates are advised to have their essays typed, and to confine them to (approximately) 30,000 words.

The subject for 1924 is:—The Evolution of Democratic Ideas in Roman History or Saint-Just in the French Revolution.

Awarded in 1912 to G. L. B. Mackenzie (*ob.*); 1914, W. F. Wallace; 1918, Miss M. G. Reid.

U. THE JARDINE MEMORIAL PRIZE FOR ENGLISH VERSE

1. This prize, of the value of \$100, shall be open to any regular undergraduate student who has been in actual attendance at the University

during the academic year preceding the date of submission (November 1) or who graduated in the previous academic year.

2. The subject and metre of the poem shall be left to the choice of the competitor.

3. It is suggested that the length of the poem should be not less than 100 or more than 300 lines.

4. The poems shall be in the hands of the Registrar of the University by November 1st.

5. Each poem shall be signed with a pseudonym and the competitor's name shall be submitted to the Registrar in a sealed envelope on which the pseudonym shall be written.

6. With his or her name the competitor shall enclose a signed statement that the poem is absolutely his or her original work.

7. The competition shall be judged by a board of five examiners, consisting of the head of the Department of English in each of the four colleges, and of a fifth examiner to be chosen by these four.

8. The examiners shall have the power to withhold the award in any year if no poem which has been submitted for that year be found worthy of the prize.

Awarded in 1920 to H. D. Langford; 1921, E. W. McInnis

U. THE RAMSAY SCHOLARSHIP IN POLITICAL ECONOMY.

This scholarship, of the value of \$60, is the gift of the late Mr. William Ramsay of Bowland, Scotland, and is open for competition to all graduates or undergraduates who have been placed in the first class in one of the Economic subjects of the Fourth Year in the honour department of Political Science; but not more than two years must have elapsed since the competitor passed the examination above specified. The award is made upon an essay, the subject of which must be some question in Economics or Finance, of interest to the commercial community in Canada, to be announced in May of each year and the competition closes on the 15th of September thereafter, by which date the essays must be in the hands of the Registrar of the University.

1922. The Restoration of the Gold Standard.

1923. Economic Causes and Consequences of the Decline in the Rural Population of Ontario.

Authorities must be carefully stated in every case.

No award in 1920 and in 1921.

U. THE GEORGE PAXTON YOUNG MEMORIAL FELLOWSHIP IN PHILOSOPHY

This fellowship, of the value of \$300, will be awarded in June, 1923. The holder must be a Bachelor of Arts who has taken an honour course in Philosophy. This scholarship is tenable for one year, and the holder must devote his whole time to the study of some topic falling under the general term Philosophy. He may pursue his studies either in the

University of Toronto, or in some other University approved by the Council of the Faculty; but in either case he shall furnish to the Council of the Faculty such evidence as may from time to time be required that he is faithfully observing the conditions under which the scholarship was awarded. Applications must be in the hands of the Registrar on or before June 15th, 1923. Further particulars may be obtained from the Registrar.

Those who have held the Young Fellowship are:—1897, M. A. Shaw, B.A., Ph.D.; 1899, G. J. Blewett, B.A., Ph.D. (*ob.*); 1899, R. J. Richardson, B.A.; 1901, F. S. Wrinch, B.A., Ph.D.; 1903, Miss M. A. Downing, B.A.; 1905, J. I. Hughes, B.A.; 1907, W. T. Brown, B.A., Ph.D.; 1911, J. S. Sanderson, M.A., Ph.D.; 1913, E. A. Bott, B.A.; 1915, C. A. Gowans, B.A.; 1917, no award; 1919, L. C. Harvey, B.A.

U. THE MARION DICKENSON SCHOLARSHIP IN HOUSEHOLD SCIENCE

1. This Scholarship, which has been founded from a bequest of the late Miss Marion Dickenson, shall be called the Marion Dickenson Scholarship, and is of the annual value of \$200.
2. The Scholarship shall be awarded either to an undergraduate of the University of Toronto, or to a graduate student who holds a Degree from this University.
3. The scholar shall undertake studies in Household Economics in Teachers College, Columbia University, New York, within three years after the award is made, but the Scholarship shall not be paid until after the scholar shall have regularly entered upon the course in Columbia University.
4. A candidate for the Scholarship shall have obtained First Class Honour standing in Household Science at least in her term work on graduation.
5. A candidate who proposes to enter upon an academic career shall have preference.
6. In the event of an award not being made in any year the Scholarship may in exceptional cases be granted for the second year to a previous holder.
7. The award shall be made by the Council of the Faculty of Arts on the recommendation of the President and the heads of the Departments of Household Science and Food Chemistry in the Faculty of Household Science.

These conditions are subject to change by the Senate and the Board of Governors

Awarded in 1921 to Miss E. H. Pridham.

U. TUTORIAL FELLOWSHIPS

Tutorial Fellowships in Mathematics, Chemistry and Biology, of the annual value of \$500 each, are awarded annually. The selection is made from among graduates of the University. Each Fellow is ap-

pointed annually; but he may be reappointed for a period not exceeding, in all, three years.

Each Fellow is required to assist in the teaching and practical work of his department, under the direction of the professor or lecturer. The Fellows are selected with a special view to their aptitude for teaching and their attainments in the department in which the appointment is to be made. Every Fellow on accepting his appointment comes under an obligation to fulfil the duties of his Fellowship during the academic year in which he is appointed, unless specially exempted.

In the Departments of Psychology, Physics, Biology, Physiology, Chemistry and Mineralogy a number of Assistant Demonstrators and Class Assistants are appointed annually, whose appointments are made subject to the same conditions as those governing the Tutorial Fellowships. The annual remuneration attached to these positions varies according to the extent of the duties assigned to the appointees.

Candidates for the Fellowships must send their applications annually to the Registrar, not later than the first day of June.

THE RHODES SCHOLARSHIP

The trustees of the late Mr. C. J. Rhodes have assigned one of the Rhodes Scholarships to the Province of Ontario.

This scholarship will hereafter be thrown into open competition in the Province, subject to the following conditions:—

1. Candidates must be British subjects, with at least five years' domicile in Canada, and unmarried. They must have passed their nineteenth, but not have passed their twenty-fifth birthday, on October 1st of the year for which they are elected.

2. Candidates must be at least in their Sophomore Year at some recognized degree-granting University or College of Canada, and (if elected) complete the work of that year before coming into residence at Oxford.

3. Candidates must elect whether they will apply for the Scholarship of the Province in which they have acquired any considerable part of their educational qualification, or for that of the Province in which they have their ordinary private domicile, home or residence. They must be prepared to appear before the Committee of Selection for the Province they select.

In each Province there will be a Committee of Selection, appointed by the Trustees, in whose hands the nomination will rest. The Secretary of the Committee of Selection for Ontario is J. M. Macdonnell, Esq., National Trust Company, Limited, 18-22 King Street East, Toronto.

The Committees of Selection will be instructed to bear in mind the suggestions of Mr. Rhodes, who wished that, in the choice of his Scholars, regard should be had to literary and scholastic attainments, fondness for and success in outdoor sports, qualities of manhood, moral force of character, and leadership in school and college life.

Every candidate for a Scholarship is required to furnish to the Committee of Selection for his Province the following:—

- (a) A certificate of age.
- (b) A written statement from the President or Acting President of his College or University to the effect that his application as a suitable candidate is approved.
- (c) Certified evidence as to the courses of study pursued by the Scholar at his University, and as to his gradings in those courses. This evidence should be signed by the Registrar, or other responsible official, of his University.
- (d) A brief statement by himself of his athletic and general activities and interests at College, and of his proposed line of study at Oxford.
- (e) Not more than four testimonials from persons well acquainted with him
- (f) References to four other responsible persons, whose addresses must be given in full, and of whom two at least must be professors under whom he has studied.

It is in the power of the Committee of Selection to summon to a personal interview such of the candidates as they find desirable to see, and, save under exceptional circumstances, no Scholar will be elected without such an interview. Where such an interview is dispensed with, a written statement of the reasons will be submitted to the Trustees.

The next appointment will be made for 1923, applications for this Scholarship with all required material must reach the Secretary of the Committee of Selection not later than October 11th, 1922

The Scholarships are of the value of £300 a year, and are tenable for three years, subject to the continued approval of the College at Oxford of which the Scholar is a member. They will be paid quarterly. The first payment (£75) will be made at the beginning of the Scholar's first term at Oxford. No request for any earlier payment can be considered.

On account of the increased cost of living the Rhodes Trust is giving an additional bonus of £50 per annum until further notice.

The Rhodes Scholars elected by this University previous to 1919 are as follows.—

- 1904: E. R. Paterson, University College. (*ob.*)
- 1906: R. C. Reade, University College.
- 1908: W. K. Fraser, University College
- 1910: A. L. Burt, Victoria College.
- 1913: C. H. Carruthers, University College.
- 1915: A. K. Griffin, Trinity College.

The following Rhodes Scholars, students of this University, have been nominated by the Committee of Selection for Ontario and duly appointed by the Rhodes Trust.

- 1919: M. D. C. Tait, University College.
- 1920: J. R. Stirrett, University College.
- 1921: J. Lowe, Trinity College.

THE EDWARD KYLIE AWARD

A permanent foundation to be known as the "Edward Kylie Trust" has been established by friends of the late Edward J. Kylie, M A of the Department of Modern History and in his memory. The income from this fund will be used by the Trustees for the purpose of making an award from time to time to a student in the Modern History Course to enable him to pursue his studies in Great Britain.

Applications should be addressed "The Secretary, The Edward Kylie Trust" and forwarded, before the first of May in each year, through the Registrar of the University, from whom further information can be secured.

Awarded in 1921 to F. H. Soward.

THE 1851 EXHIBITION SCIENCE RESEARCH SCHOLARSHIP

The Royal Commissioners for the Exhibition of 1851, if satisfied with the qualifications of the candidates put forward, will each year allot three Science Research Scholarships to Canada. The University of Toronto has been invited to recommend annually one or more candidates in order of merit for these Scholarships.

1. Each candidate recommended must be a British subject and under twenty-six years of age, except under very special circumstances; he must be a bona-fide student of Science of not less than three year's standing, he must also have completed a full University course and have spent at least one full academic year at this University prior to the date of recommendation.

2. The latest date on which the recommendation of the University of Toronto for Scholarships offered in 1922 can be received at the Office of the Commissioners is May 1st, 1922.

3. Each Scholarship is of the value of £250 per annum, payable quarterly in advance; on presenting to the Commissioners a satisfactory final report at the expiration of his Scholarship the scholar will receive a grant of £25. A scholar who is not in a position to travel at his own expense, or for whom it is not possible to obtain free passage, may make application to the Commissioners for aid towards the payment of his fare from his University to his place of study. A Scholar will receive an additional annual allowance, not exceeding £30 towards the cost of University fees, if, in the opinion of the Commissioners, he is in need of such allowance.

4. The Scholarship will be tenable ordinarily for two years, and in cases of exceptional merit for three years. The continuation of a Scholarship for a second year will depend upon the satisfactory nature of the scholar's first year's work. Renewal for a third year will be granted only where it appears that the renewal is likely to result in work of scientific importance.

5. The scholar will be required to devote himself to research in some branch of pure science, or its practical applications

6. A scholarship may be held, with the approval of the Commissioners, at any Institution at home or abroad, but a scholar will not be permitted

except under very special circumstances, to conduct his investigations in the country in which he has received his scientific education. After consultation with the Head of the Department in which he elects to study, the scholar will submit, for the approval of the Commissioners, his proposed subject of research.

7. Scholars will be required to furnish reports of their work at the end of each year of tenure of their scholarships.

8. Scholars will be required to devote their whole time to the objects of the scholarship, and will be forbidden to hold any position of emolument which carries with it a duty inconsistent with their obligation to the Commissioners. Scholars must in any case obtain the consent of the Commissioners before accepting any additional emoluments.

9. In case of misconduct on the part of a scholar the Commissioners may, at their absolute discretion, deprive him of his scholarship and all emoluments therefrom.

The regulations adopted by the Senate are as follows:—

The departments, students of which shall be eligible to be candidates, are:—1. Bacteriology; 2. Biology; 3. Chemistry; 4. Chemistry (applied); 5. Engineering (chemical); 6. Engineering (electrical); 7. Engineering (mechanical); 8. Engineering (civil); 9. Engineering (mining); 10. Forestry; 11. Geology; 12. Mineralogy; 13. Pathology; 14. Physics; 15. Physiology.

A student shall not be deemed to be ineligible because of his being on the teaching staff of the University, if he has not been in receipt of a salary of more than \$500 per annum and has not been on the teaching staff for more than two years from graduation.

A student shall be deemed to be eligible in the year in which he intends to graduate, but if nominated for the Scholarship his nomination shall be subject to his being successful in passing his examination for his degree.

The nomination of the candidate or candidates shall be made by a Board composed of seven members appointed by the Senate, and the Board shall consist of the Chancellor, the President, the Reverend Dr. Bowles, Mr. Featherstone Osler, the Honourable Mr. Justice Maclaren, the Honourable Mr. Justice Riddell and Mr. J. A. Worrell, and the Board shall have power to call to its aid as assessor any member of the teaching staff.

The 1851 Exhibition Science Research scholars:—

F. J. Smale, B.A., Ph.D., 1892-93, 1893-94, 1894-95.

F. B. Kenrick, M.A., Ph.D., 1894-95, 1895-96, 1896-97.

A. M. Scott, B.A., Ph.D., 1896-97, 1897-98.

W. G. Smeaton, B.A., Ph.D., 1898-99, 1899-1900.

J. Patterson, B.A., 1900-01, 1901-02.

W. C. Bray, B.A., 1902-03, 1903-04.

E. F. Burton, Ph.D., 1904-05, 1905-06.

R. H. Clark, M.A., 1906-07, 1907-08.

C. S. Wright, M.A., 1908-09, 1909-1910.

W. P. Thompson, B.A., 1910-11, 1911-12.
A. J. Dempster, M.A., 1912-13, 1913-14.
A. R. McLeod, M.A., 1914-1915 (Bursary).
1916, 1918, 1919, no awards.
A. L. Marshall, M.A., 1920-21.

THE JOHN H. MOSS MEMORIAL FUND

The John H. Moss Memorial Fund, the gift of friends of the late John H. Moss, B.A., K.C., is intended to provide the annual sum of \$300 to be awarded under the following regulations:

The graduating class in Arts in each of University College, Victoria College, Trinity College and St. Michael's College, shall select by vote the student whom they regard as the best all-round man or woman in the final year, giving preference during the first ten years to former members of the Canadian Expeditionary Forces, or failing them, to children, brothers or sisters of such former members, or of Canadian officers or men who served at home during the war. Nominations must reach the Secretary of the University of Toronto Alumni Association not later than March 1st.

The award shall be made to one of the four students so selected by a Committee of Award consisting of the President of the University, the President of the Alumni Association and three of its members.

Awarded in 1921 to H. D. Brown, Victoria College, and P. A. Child, Trinity College, *aeq.*

DAUGHTERS OF THE EMPIRE POST-GRADUATE OVERSEAS SCHOLARSHIP

This scholarship was founded by the Imperial Order, Daughters of the Empire, as part of the War Memorial of the Order. It is of the value of \$1,400, tenable for one year in any British university, the subjects of study being specified as British and Imperial History, the Economics and Government of the Empire and Dominion, or any subject vital to the interest of the Empire. The scholarship is open to men or women, British subjects, unmarried, graduates of a Canadian university or in the last year of a course leading to a degree.

In awarding the scholarship, the Committee of Selection will take into consideration the War service of the candidate and of members of his or her family, and, other things being equal, will give preference to a returned man, his sister, or his child.

The scholarship will next be awarded to a candidate from Ontario in 1923.

Information respecting this scholarship may be obtained from Miss W. Gordon, 122 University Avenue, Kingston, Ont., from whom forms of application may be secured.

THE MCCCHARLES PRIZE

This prize was established in connection with the bequest of the late Aeneas McCharles of Provincial Government bonds of the value of \$10,000,

and is awarded on the following terms and conditions, namely, that the interest therefrom shall be given from time to time, but not necessarily every year, like the Nobel prizes in a small way. (1) To any Canadian from one end of the country to the other, and whether student or not, who invents or discovers any new and improved process for the treatment of Canadian ores or minerals of any kind, after such process has been proved to be of special merit on a practical scale, (2) Or for any important discovery, invention or device by any Canadian that will lessen the dangers and loss of life in connection with the use of electricity in supplying power and light; (3) Or for any marked public distinction achieved by any Canadian in scientific research in any useful practical line. The following conditions, as passed by the Board of Governors, determine the method of award:—

(1) The title shall be the McCharles Prize.

(2) The value of the prize shall be One Thousand Dollars (\$1,000.00) in money.

(3) The term "Canadian" for the purpose of this award shall mean any person Canadian born who has not renounced British alliance; and for the purpose of the award in the first of the three cases provided for by the bequest, domicile in Canada shall be an essential condition

(4) Every candidate for the prize shall be proposed as such in writing by some duly qualified person. A direct application for a prize shall not be considered.

(5) No prize shall be awarded to any discovery or invention unless the same shall have been proved to the satisfaction of the awarding body, to possess the special practical merit indicated by the terms of the bequest.

(6) The order of priority in which the three cases stand in the wording of the bequest shall be observed in making the award; that is, the award shall go *caeteris paribus* to the inventor of methods of smelting Canadian ores; and, failing such inventions, to the inventor of methods for lessening the dangers attendant upon the use of electricity; and only in the third event, if no inventors of sufficient merit in the field of metallurgy and electricity present themselves, to the inventor distinguished in the general field of useful scientific research.

(7) The first award was made in 1910.

(8) The composition of the awarding body shall be as follows:—

An expert in Mineralogy,

An expert in Electricity,

An expert in Physics,

and four other persons. All of the members of this body shall be nominated by the Board of Governors of the University of Toronto.

COURSES OF INSTRUCTION

The members of the staff indicated under the headings "The Classics" etc., in the following pages, are those of the Session 1921-1922

THE CLASSICS

UNIVERSITY COLLEGE.

MAURICE HUTTON, M.A., LL.D.	<i>Professor of Greek.</i>
J. MACNAUGHTON, M A, LL D.	<i>Professor of Latin</i>
A CARRUTHERS, M.A.	<i>Professor of Greek Literature and Archaeology.</i>
W. S MILNER, M.A.	<i>Professor of Greek and Roman History.</i>
G OSWALD SMITH, M.A.	<i>Associate Professor of Latin.</i>
C. N COCHRANE, M.A.	<i>Associate Professor of Ancient History.</i>
E. A. DALE, M A	<i>Assistant Professor of Latin</i>
A GRANT BROWN, M.A.	<i>Assistant Professor of Ancient History.</i>
W. D. WOODHEAD, M A., PH D.	<i>Assistant Professor of Greek.</i>
D DUFF, M A, B D.	<i>Assistant Professor of Latin</i>
MISS E HARRIS, B.A.	<i>Instructor in Latin.</i>

VICTORIA COLLEGE:

A. J BELL, M.A., PH D.. . . .	<i>Professor Emeritus.</i>
J C. ROBERTSON, M A	<i>Professor of Greek.</i>
A L. LANGFORD, M A	<i>Professor of Greek.</i>
N. W. DEWITT, B A, PH D.	<i>Professor of Latin.</i>
C. B. SISSONS, B A.	<i>Professor of Ancient History.</i>
H. GRANT ROBERTSON, B.A, PH D.	<i>Lecturer.</i>
T. R. S. BROUGHTON, B.A.	<i>Fellow in Latin.</i>

TRINITY COLLEGE:

REV. H. T. F. DUCKWORTH, M A.	<i>Professor of Ancient History.</i>
E. T. OWEN, M.A.	<i>Professor of Greek</i>
W. A. KIRKWOOD, M.A., PH.D.	<i>Professor of Latin.</i>
J. N. WOODCOCK, M A.	<i>Professor of Latin.</i>
S. M. ADAMS, M A	<i>Lecturer.</i>
MISS S. G. MORLEY, M.A.	<i>Lecturer.</i>

ST. MICHAEL'S COLLEGE:

REV. HENRY CARR, B.A.	<i>Professor of Greek.</i>
REV. R. McBRADY.	<i>Professor of Latin.</i>
REV. V. J. MURPHY.	<i>Associate Professor of Latin.</i>
REV. J. B. WALSH, M.A.	<i>Lecturer in Latin.</i>
M. M. ST. CLARE, B.A.	<i>Lecturer in Latin.</i>

N.B.—The following books are recommended for the use of all students taking work in the Classical Department: Dictionaries: Greek—LIDDELL AND SCOTT, *Greek-English Lexicon* (unabridged or intermediate size);

Latin—LEWIS AND SHORT, *A Latin Dictionary* (unabridged or intermediate size); Grammars: Greek—GOODWIN, *Greek Grammar*; Latin—ALLEN AND GREENOUGH or GILDERSLEEVE AND LODGE, *Latin Grammar*, Histories of Literature; Greek—GILBERT MURRAY or WRIGHT; Latin—MACKAIL, *Latin Literature*; Atlases: MURRAY, *Classical Atlas* or *The Atlas of Ancient and Classical Geography* in Everyman's Library.

GREEK

PASS COURSES

1a. Translation at sight of passages of ordinary difficulty from Xenophon's historical works; Greek Grammar (including sentences to test accidence and syntax); NORTH AND HILLARD, *Greek Prose Composition*, Exercises A, pages 1-85; BELL, *Second Greek Reader*. Four hours a week.

1b. WHITE, *First Greek Book*.

(This course may be taken only by those specially recommended by their College, and the course must be continued through all four years.)

2a. Translation at sight of easy passages of Greek; Greek Grammar; translation from English into Greek of sentences based on NORTH AND HILLARD, *Greek Prose Composition*, pages 1-155 inclusive; EURIPIDES, *Medea*; THUCYDIDES, I. Chap., 89-117, 128-138 both inclusive. Three hours a week.

2b. EDWARDS, *Salamis*; FREEMAN AND LOWE, *Greek Reader*; Translation at sight. (This course is for those who have completed 1b.)

3a. PURVES, *Selections from Plato*; Translation at Sight. To be read in English: additional prescribed portions of Plato; THUCYDIDES, *Pericles' Funeral Speech*; DEMOSTHENES, *Philippic I.*; DICKINSON, *Greek View of Life*; GRANT, *Age of Pericles*. Three hours a week.

4a. HOMER, *Iliad* I., 1-350, VI., 237 to end, XXII.; *Odyssey*, VI. and IX.; SOPHOCLES, *Œdipus Rex*; Translation at sight. To be read in English: SOPHOCLES, *Antigone*; EURIPIDES, *Medea*; ARISTOPHANES, *Birds*. BUTCHER, *Aspects of Greek Genius*, Chaps. 1 and 2, and *Harvard Lectures*, Chaps. 1, 2 and 3; LIVINGSTONE, *Greek Genius*; JEBB, *Classical Greek Poetry*. Three hours a week.

HONOUR COURSES

1c. *Classics*: Greek Grammar; translation at sight; Greek prose composition; PLATO, *Apology*; HOMER, *Iliad* XVIII., XXII. and XXIV.; THUCYDIDES, I, 89-117, 128-138, and IV., 1-41, 76-108. Five hours a week.

1d. *English and History*: The same as 1c, omitting THUCYDIDES IV.

1e. *Greek and Hebrew*: The same as 1c.

1f. *Philosophy English and History*: Greek Prose Composition, PLATO and THUCYDIDES, as in 1d.

2c. *Classics*: Greek Grammar; translation at sight; Greek prose composition; AESCHYLUS, *Prometheus Vincetus*; DEMOSTHENES, *Philippic I., Olynthiacs I., II., III.*; THEOCRITUS, *Idylls I., VII., VIII., XIII., XV., XXI.*, ARISTOPHANES, *Birds*; THUCYDIDES, I. Five hours a week.

2d. *English and History*: The same as 2c, omitting Greek Grammar, DEMOSTHENES, *Olynthiacs II., III.*, and THUCYDIDES. Three hours a week.

2e. *Greek and Hebrew*: Translation at sight, SOPHOCLES and THUCYDIDES, as in 2c. Two hours and a half a week.

2f. The same as 2c, omitting THUCYDIDES.

2g. Hellenistic Greek: CONYBEARE AND STOCK, *Selections from the Septuagint*. One hour a week.

3b. *Classics*: Greek Grammar; Greek prose composition; translation at sight; SOPHOCLES, *Œdipus Rex, Ajax*; ARISTOPHANES, *Clouds*; HERODOTUS, VII., VIII., IX.; THUCYDIDES, II., and III.; PLATO, *Republic I. to IV.*; ARISTOTLE, *Ethics I. to IV., and X.*, Chaps. 5 to 9; Ancient Philosophy including (a) Greek speculative theories before Socrates; (b) Socrates and his contemporaries; (c) the doctrines of Plato and Aristotle; elementary course with special reference to prescribed texts. In addition to the Greek texts here prescribed, the student should read GROTE, *History of Greece*, Chaps. LXVII. and LXVIII.; and CUSHMAN, *Beginner's History of Philosophy*, or ROGERS, *Students' History of Philosophy*. Nine hours a week.

3c. *English and History*: PLATO, as in 3c

3d. *English and History (Special Option)*: ARISTOTLE, as in 3c.

3e. *Greek and Hebrew*: PLATO, ARISTOTLE, and History of Greek Philosophy, as in 3c

3f. The same as 3b, omitting HERODOTUS and THUCYDIDES III.

3g. Hellenistic Greek; Grammar and Philology; The Septuagint, *Judges*; New Testament, *Acts, 13-28*.

3h. Essays on prescribed topics.

4b. *Classics*: Greek Grammar and Philology; Greek prose composition; translation at sight; THUCYDIDES, V. to VIII.; PLATO, *Republic*; ARISTOTLE, *Ethics*, Book X., Chaps. 6 to 9, ARISTOTLE, *Politics I*, Chaps. 1 to 7, II, Chaps. 5, 7, 8, 9; V.; a survey of Greek Philosophy from Socrates to Aristotle (WINDELBAND, *History of Ancient Philosophy*); AESCHYLUS, *Agamemnon*; ARISTOPHANES, *Frogs*; ARISTOTLE, *Poetics*, with the history of the Greek genius and Greek poetry so far as covered by the following books: BUTCHER, *Aspects of Greek Genius* (2nd edition); *Harvard Lectures*; MATTHEW ARNOLD, *On Translating Homer*; BUTCHER, Essays in his edition of the *Poetics*; JEBB, *Classical Greek Poetry*; MOULTON, *Ancient Classical Drama*. Seven hours a week.

4c. *English and History*: ARISTOTLE, *Poetics* (with books) as in 4c. A knowledge of Greek is not essential for this course.

4d. *English and History (Special Option)*: PLATO, *Republic* as in 4c.

4e. *Greek and Hebrew*: PLATO, *Republic*; History of Philosophy with special reference to Philo, Neo-Platonism, and the Stoicism of the Empire.

4f. The same as 4b, omitting Philology and THUCYDIDES.

4g. Hellenistic Greek: Grammar and Philology; Selections from *Wisdom Literature*, New Testament, *Hebrews*.

4h. A course of reading to be approved by the Department, with essays on prescribed topics

LATIN

PASS COURSES

1a. Translation at sight of Latin similar to the prescribed Cicero; translation into Latin of sentences based on the prescribed Cicero; translation of passages from the prescribed Ovid, questions on grammar and prosody, and on the subject-matter of the prescribed texts; CICERO, *Pro Lege Manilia*, OVID, Selections (Gleason, omitting No. IV.). Four hours a week.

2a. Translation at sight; translation into Latin of sentences to illustrate Latin syntax; translation into Latin of simple narrative based on the prescribed Livy, LIVY, Selections from Books I.-X, (Dennison, 60 pages); CATULLUS (Simpson), questions on grammar and prosody and on the subject matter of the texts. Three hours a week.

3a. *Course for 1922-1923*: Latin Grammar, Latin Prose Composition; Sight Translation; CICERO, *Pro Archia*, VIRGIL, *Eclogues* I. and IV., *Aeneid* VI.; selections from GILLIES and CUMMING, *Latin of the Empire*, QUINTILIAN, *Estimate of Latin Writers*, SENECA, *The Choice of Books*, *The God Within Us*; LUCAN, *The Causes of the Civil War*, MARTIAL, *Country Life*, *To his Book*, *To Quintilian*, *The Day in Rome*, *A Suburban Villa*, *The Schoolmaster's Neighbour*, *The Happy Life*, *Bilbilis and Rome*, *To His Townsmen*, *To Juvenal*, STATIUS, *To Sleep*; AUSONIUS, *The Moselle*; CLAUDIAN, *Imperial Rome*, *The Old Man of Verona*; RUTILIUS NAMATIUS, *Farewell to Rome*, TIBERIANUS, *A Country Scene*, MACKAIL, *Latin Literature*. Three hours a week.

3a. *Course for 1923-1924*: Latin Grammar; Latin Prose Composition; Sight Translation, TACITUS, *Agricola*, HORACE, *Epistles*, Book I.; selections from GILLIES and CUMMING, *Latin of the Empire*; JUVENAL, *Satires* I., III., X.; PLINY, *The Death of the Elder Pliny*, *The Eruption of Vesuvius*, *The Treatment of the Christians*. WARDE FOWLER, *Social Life at Rome in the Age of Cicero*. Three hours a week.

4a. *Course for 1922-1923*. The same as 3a. Three hours a week.

NOTE 1. Students of the Fourth Year who have not passed in the Latin of their Third Year, will be required at the B.A. examination of 1922 to take an additional paper on the work of the alternative course.

NOTE 2 Students of the Fourth Year, who through absence from the University, have not taken the two Latin courses in consecutive years, will, at their Final Examination, be required to take the paper on the authors prescribed in 3a, which they did not take in their Third Year.

HONOUR COURSES

1b. Classics: Latin Grammar, including prosody; Latin Prose Composition; Sight Translation, VIRGIL, *Georgics* IV, *Aeneid* VI. (Sidgwick or Page); CATULLUS (Simpson); HORACE, The Odes not read for the Honour Matriculation Examination of 1921; CICERO, *Pro Murena*, *Pro Archia*, *Philippic* II. The paper on grammar will be based largely on the prescribed authors; the papers on the texts will include questions on the contents, style, and literary history of the books. Four to five hours a week.

1c. English and History. The same as 1b, omitting VIRGIL, *Georgics* IV, and CICERO, *Pro Murena*. Four hours a week.

2b Classics: Latin Grammar; Latin Prose Composition; Sight Translation; TACITUS, *Annals*, Books I and II.; LIVY, Books XXI. and XXII.; VIRGIL, *Eclogues*; PLAUTUS, *Menaechmi*; TERENCE, *Andria*; MARTIAL, *Select Epigrams*; HORACE, *Epistles*, SELLAR, *The Roman Poets of the Republic*. Five to six hours a week.

2c. English and History. The same as 2b, omitting Latin Grammar, LIVY and TACITUS. Three hours a week.

2d. French, Greek and Latin, the same as 2b, omitting LIVY XXII.

3b. Classics: Latin Grammar; Latin Prose Composition; Sight Translation, HORACE, *Satires*, omitting I., 2 and 8, II., 2, 4, 7 and 8; PERSIUS, *Satire* V.; JUVENAL, *Satires* I., III., V, VII., VIII., X, XIII.; the history of Roman Satire.

TIBULLUS, I, 1 and 3, II., 1 and 5; PROPERTIUS, I, 1, 2, 8, II., 13b, 31, 34, III., 1, 3, 7, 9, IV., 2, 6, 11; CARTER, *Latin Elegiac Poets*; VIRGIL, *Aeneid*, Books I-VI; LUCRETIUS, Book V.

CICERO, *Letters* (Watson), Books I. and II.; CAESAR, *Civil War*, Book I.

TACITUS, *Annals*, Books III. to VI. (Furneaux, large edition): Monumentum Ancyranum (Mommsen); reign of Tiberius and introduction to the history of the principate (MERIVALE, *The Romans under the Empire*, Vols. III., IV., and V.; BOISSIER, *Tacitus*). Six hours a week.

3c. English and History; HORACE, PERSIUS, *Satires* as in 3b, JUVENAL, *Satires* I., III., V., VII., VIII., X., XIII., the history of Roman Satire; TIBULLUS, I., 1 and 3, II., 1 and 5, PROPERTIUS, I, 1, 2, 8, 11, 13b, 31, 34, III. 1., 3, 7, 9, IV, 2, 6, 11; CARTER, *Latin Elegiac Poets*; LUCRETIUS, Book V. Two hours a week.

3d. English and History (special option): CICERO. *Letters* (Watson), Books I. and II.; CAESAR, *Civil War*, Book I.

3e. Essays on prescribed topics.

3f. The same as 3b, omitting TACITUS.

4b. *Classics*: Latin Grammar and Philology; Latin Prose Composition; Sight Translation; VIRGIL, *Aeneid*, with questions in Virgilian criticism.

HORACE, *Ars Poetica*, and QUINTILIAN, Book X., with questions on the history of Roman literature.

LUCRETIUS, Books I. and III.; CICERO, *De Finibus*, Books I. and II.; Stoic and Epicurean Philosophy.

CICERO, *Letters* (Watson), Books III. to V.; SALLUST, *Catiline*; CAESAR, *Civil War*; Roman constitutional history from the death of Sulla to the death of Cicero (Mommsen, Book V.; Ferrero). Five hours.

4c. *English and History*; CICERO, *Letters* (Watson), Books III. to V.; SALLUST, *Catiline*; CAESAR, *Civil War*. Two hours.

4d. The same as 4b, omitting Philology and CICERO, *Letters* and adding a reading course in Latin of the Silver Age.

4e. A course of reading to be approved by the Department, with essays on prescribed topics.

GREEK AND ROMAN HISTORY

PASS AND HONOUR COURSE

1. General History of Greece to 146 B.C. General History of Rome to A.D. 476. GOODSPEED, *History of the Ancient World*; BURY, *Student's History of Greece* (Kimball); PELHAM, *Outlines of Roman History*. The course aims at a simple outline of the general historical movement in the Græco-Roman world and at an appreciation of the most characteristic features of this Mediterranean civilization.

PASS COURSES

3a. A more mature study of Greek History, based upon Thucydides, Herodotus and Plutarch (Everyman's Library); and an examination of the influence of Greece on Rome.

4a. The causes, social, economic and political, of the fall of the Roman Republic; and the history of the Roman Empire to the death of Justinian.

HONOUR COURSES

2a Greek History to 454 B.C.; GROTE (Mitchell and Çaspari), Chaps. I. to XV.

2b. Roman constitutional and political history to B.C. 264: the city state, criticism of the regal period, the revolution of 509, the struggle between the orders, the conquest and organization of Italy. MOMMSEN, Books I. and II.; TAYLOR, *Constitutional and Political History of Rome*; WARDE FOWLER, *The City State*; FUSTEL DE COULANGES, *La Cité antique*, omitting those portions of the book which deal with Greek history. Classical students are recommended to purchase Mommsen complete early in

their course, but HOW AND LEIGH, *History of Rome* (cc. i-xvii.) covers this period satisfactorily.

3b. Greek History from B.C. 454 to B.C. 399; GROTE (Mitchell and Caspari), Chaps. XVI. to XXI.; ZIMMERN, *The Greek Commonwealth*; historical questions on the prescribed Thucydides.

3c. Roman History from B.C. 264 to B.C. 78, i.e., the period of foreign conquest and the beginning of the Revolution; MOMMSEN, Books III. and IV.; TAYLOR, *Constitutional and Political History of Rome*.

4b. General questions on Greek History.

4c. Roman Constitutional and Political History from the death of Sulla to the death of Cicero; MOMMSEN, Book VI., FERRERO.

4d. Roman Institutions: GREENIDGE, *Roman Public Life*; WARD FOWLER, *The Religious Experience of the Roman People*; DELOUME, *Les Manieures d'argent à Rome*.

ORIENTAL LANGUAGES

UNIVERSITY COLLEGE:

J. F. McCURDY, PH.D., LL.D.....	<i>Professor Emeritus.</i>
W. R. TAYLOR, PH.D.....	<i>Professor.</i>
J. A. CRAIG, M.A., B.D., PH.D.....	<i>Professor.</i>
W. A. IRWIN, M.A., D.B.....	<i>Lecturer.</i>

VICTORIA COLLEGE:

REV. J. F. McLAUGHLIN, B.A., D.D.....	<i>Professor.</i>
S. H. HOOKE, M.A., B.D.....	<i>Professor.</i>
REV. W. A. POTTER, M.A., B.D.....	<i>Associate Professor.</i>

TRINITY COLLEGE:

REV. F. H. COSGRAVE, M.A., B.D.....	<i>Professor.</i>
REV. W. ROLLO, M.A.....	<i>Lecturer.</i>

PASS COURSES

1a. A course in the history of the Hebrew people from the Exodus to 586 B.C.; a literary study of the books of Amos, Hosea, Isaiah and Micah. One hour a week.

1b. Hebrew Grammar; translation from Hebrew into English of Gen. 1-4, 18; Pss. 1, 8, 24; translation from English into Hebrew. Introduction to Oriental History. DAVIDSON, *Hebrew Grammar*; KITTEL, *Biblia Hebraica*. Four hours a week.

2a. A course in the history of the Hebrew people from 586 to 4 B.C.; a study of the Prophetic, Legal and Historical Literature of the Old Testament. Two hours a week.

2b Hebrew Grammar with special attention to syntax, translation from English into Hebrew; translation into English of *Genesis* 37, 40-45, *Ex.* 3, 4, 15; *Ruth*; *II. Samuel* 14-19; history of the Massoretic Text and the Versions, outlines of the geography of Palestine. The sources of Hebrew Literature, DAVIDSON, *Hebrew Grammar*, KITTEL, *Biblia Hebraica*, BROWN, DRIVER AND BRIGGS, *Lexicon*. Three hours a week.

3a. A literary study of the Poetical books of the Old Testament and of the Synoptic Gospels. Three hours a week.

3b. Translation from English into Hebrew, Hebrew history from the settlement in Canaan to the end of the Kingdom (586 B C.) Translation into English of *Amos*, *Isaiah* 1-6, 40-45 and 52-55, *II. Kings* 15-25, *Deuteronomy* 5-11, KITTEL, *Biblia Hebraica*, DAVIDSON, *Hebrew Grammar* (20th edition), DAVIDSON, *Hebrew Syntax*, BROWN, DRIVER AND BRIGGS, *Lexicon*, KENT, *A History of the Hebrew People*, Vols. II. and III. Three hours a week.

4a. A study of the Early Literature of Christianity. Three hours a week

4b. Translation from English into Hebrew, characteristics of Hebrew poetry; Jewish history from the fall of Jerusalem 586 B C. to the end of the Maccabean period Translation into English of selected *Psalms*, 100, 95, 24, 15, 48, 87, 114, 81, 147, 148, 150, 46, 47, 93, 97, 8, 19, 29, 103, 104, 65, 67, 118, 21, 116, 30, 74, 89, 90, 20, 72, 42, 43, 22, 51, 137, 84, 122, 110, 107, 23, 78, 127, 133, 45; *Zechariah* 1-8, *Jonah*; *II Chronicles* 1-9, KITTEL, *Biblia Hebraica*, DAVIDSON, *Hebrew Syntax*; GESENIUS-KAUTZSCH, *Hebrew Grammar*; KENT, *History of the Jewish People*, Vols. III. and IV. Three hours a week.

HONOUR COURSES

2c. *Oriental: Greek and Hebrew* Hebrew Grammar with special attention to syntax. Translation into English, the same as 2b. Hebrew prose exercises. DAVIDSON, *Hebrew Grammar* (20th edition); DAVIDSON, *Hebrew Syntax*. Three hours a week.

2d. *Oriental: Greek and Hebrew*. Translation into English of the *Book of Judges* 1-12, *I Sam.* 9-19; *II Kings* 17-23. Two hours a week.

2e. *Oriental*. Translation into English of *Exodus* 8-20; *Deuteronomy* 12-17. Two hours a week.

2f. *Oriental*. Grammar of Palestinian Aramaic with translation of extracts from BAER AND DELITZSCH, *Text of Daniel and Ezra*; MARTI, *Biblich-Armaeische Grammatik*. Michaelmas Term. Two hours a week.—Syriac Grammar with translation of easy prose into English; BROCKELMANN, *Syrische Grammatik*; ROEDIGER, *Chrestomathia Syriaca*. Easter term. Two hours a week.

2g. *Orientalis, Greek and Hebrew*: History of the Western Orient until 722 B C. H. R. HALL, *The Ancient History of the Near East*. One hour a week

3c. *Orientalis, Greek and Hebrew*: Translation into English, the same as 3b. Two hours a week.

3d. *Orientalis, Greek and Hebrew*: Translation into English of selections from *Isaiah* 1-39 Two hours a week.

3e. *Orientalis* Translation into English of selections from *Jeremiah*, *Ezekiel*, and the Minor Prophets. Two hours a week.

3f. *Orientalis*. Hebrew prose composition and sight translation GESSENIUS-KAUTZSCH, *Hebrew Grammar*. One hour a week.

3g. *Orientalis, Greek and Hebrew*: History of the Western Orient from 722 B C. to 330 B C., with special attention to the history, literature and institutions of the Hebrews. One hour a week.

3h. *Orientalis*. Arabic First Course; THATCHER, *Arabic Grammar* with exercises in translating easy prose into English. Two hours a week.

3i. *Orientalis*. Advanced course in Aramaic or Syriac. Two hours a week.

3j. *Orientalis*. Elements of Assyrian; FR. DELITZSCH, *Assyrische Lesestücke*. Outlines of Comparative Grammar of the Semitic Languages; BROCKELMANN, *Vergleichende Grammatik*. Two hours a week

4c. *Orientalis, Greek and Hebrew*: Translation into English, the same as 4b. Two hours a week.

4d. *Orientalis, Greek and Hebrew*: Translation into English of selections from *Job*, *Proverbs* and *Ecclesiastes*. One hour a week.

4e. *Orientalis*. Selections from Late Biblical or Post-Biblical Hebrew One hour a week.

4f. *Orientalis*. Hebrew prose composition and sight translation. DAVIDSON, *Hebrew Syntax*. One hour a week.

4g. *Orientalis, Greek and Hebrew*: History of the Western Orient from 330 B C. to 135 A D. with special attention to the history and literature of the Jews, and the History of Mahomet and the Caliphate. One hour a week.

4h. *Orientalis*. Arabic Second Course; THATCHER, *Arabic Grammar* (continued); BRÜNNOW, *Chrestomathy of Arabic Prose Selections*; HARDER, *Arabic Chrestomathy*. Two hours a week.

4i. *Orientalis*. Advanced course in Aramaic or Syriac. Two hours a week.

4j. *Orientalis*. Advanced course in Assyrian. Inscriptions of Sennacherib, Sargon, Asurbanipal. Two hours a week.

ENGLISH

UNIVERSITY COLLEGE:

W. J. ALEXANDER, PH.D., LL.D.....	<i>Professor.</i>
D. R. KEYS, M.A.....	<i>Professor of Anglo-Saxon.</i>
M. W. WALLACE, B.A., PH.D.....	<i>Professor.</i>
R. S. KNOX, M.A.	<i>Associate Professor.</i>
W. H. CLAWSON, M.A., PH.D.....	<i>Assistant Professor.</i>
MISS M. M. WADDINGTON, PH.D.....	<i>Lecturer.</i>
MISS G. E. WOOKEY, B.A.	<i>Lecturer.</i>
J. D. ROBINS, B.A....	<i>Temporary Assistant.</i>

VICTORIA COLLEGE:

O. P. EDGAR B.A., PH.D.....	<i>Professor.</i>
L. E. HORNING, B.A., PH.D.....	<i>Professor.</i>
C. E. AUGER, B.A.....	<i>Associate Professor.</i>
E. J. PRATT, PH.D....	<i>Lecturer.</i>

TRINITY COLLEGE:

H. C. SIMPSON, M.A.....	<i>Professor.</i>
MISS MABEL CARTWRIGHT, B.A.....	<i>Lecturer.</i>
L. C. A. HODGINS, M.A.....	<i>Lecturer.</i>

ST. MICHAEL'S COLLEGE:

W. P. M. KENNEDY, M.A., LITT.D..	<i>Professor.</i>
REV. E. J. MCCORKELL, M.A.....	<i>Associate Professor.</i>
M. M. MARGARITA, B.A.....	<i>Lecturer.</i>
MISS RUTH AGNEW, M.A.....	<i>Lecturer.</i>

Composition: In the first two years of the undergraduate course original essays are required during the session from students taking the Pass and Honour Courses in English, even from those who have received dispensation from attendance upon lectures. These essays, after being carefully examined, are returned with suggestions and criticisms, and the marks assigned are reckoned in determining standing in the May examinations.

Throughout the course Composition shall be regarded as a subject distinct from literature, and candidates failing to secure the necessary standing in these essays are required to repeat the work of the year in English Composition.

Provision will be made by a special paper in English composition for the examination of those candidates for Senior Matriculation who are not in attendance, and who have not presented the essays required.

PASS COURSES

1a. Composition: The writing of at least four original compositions during the session.

1b. Familiarity with and intelligent appreciation of the following texts: *Sir Patrick Spens, Edward, The Braes o' Yarrow, Waly Waly*; DRYDEN,

A Song for St Cecilia's Day, Alexander's Feast; THOMSON, extracts from *Summer and Winter*; GRAY, *Spring, Eton College, Elegy*; GOLDSMITH, *Deserted Village*; BURNS, *Address to the De'il, To John Lapraik, To a Mouse, Last May a Braw Wooer, A Man's a Man for a' that*; WORDSWORTH, *Sonnets* (omitting *Personal Talk, Scorn not the Sonnet, A Poet—he hath put his heart to school*); SCOTT, *Rosabelle, Brignall Banks, Lochinvar, The Antiquary*; KEATS, *On Chapman's Homer, "Bright Star! would I", The Eve of St. Agnes, On a Grecian Urn, To a Nighthingale, To Autumn*; GEORGE ELIOT, *The Mill on the Floss*; BROWNING, *Fra Lippo Lippi, Andrea del Sarto, The Bishop orders his Tomb, An Epistle*; TENNYSON, *The Palace of Art*; RUSKIN, *Crown of Wild Olive*; the selections from Canadian Poets in *Representative Poetry*. [The poetical selections in this paragraph are contained in *Representative Poetry*, third edition, Students' Book Department, University of Toronto.]

Two hours a week.

2a. Composition: The writing of at least four original compositions during the session.

2b. SHAKESPEARE, *Romeo and Juliet, Henry IV., Parts I. and II., Twelfth Night, Hamlet*.

Two hours a week.

3a. The writing of essays on subjects connected with one of the Third Year courses in literature.

3b. Transition and earlier nineteenth-century literature: The selections from GOLDSMITH to BYRON inclusive in *Representative Poetry*; LOCKE, *Essay on the Human Understanding, Book I.*; GOLDSMITH, *The Vicar of Wakefield*; BURKE, *American Taxation, Conciliation with America*; the essays by WORDSWORTH, COLERIDGE, LAMB and HAZLITT in *English Critical Essays of the Nineteenth Century* (World's Classics); JANE AUSTEN, *Pride and Prejudice*; LAMB, *Poor Relations, Detached Thoughts on Books and Reading, Christ's Hospital*; NEWMAN, *Idea of a University (Knowledge its Own End and Knowledge in Relation to Learning)*; CARLYLE, *Sign. of the Times, Characteristics*.

Three or two hours a week.

4a. The writing of essays on subjects connected with one of the Fourth Year courses in literature.

4b. Later nineteenth-century literature: selections from SHELLEY to MORRIS in *Representative Poetry*; selections from *An Anthology of Modern Verse* (Methuen); essays by SHELLEY, ARNOLD, RUSKIN, MILL and BAGEHOT in *English Critical Essays of the Nineteenth Century* (World's Classics); CARLYLE, *Sartor Resartus* (Books I. and II.); THACKERAY, *Vanity Fair*; ARNOLD, *The Function of Criticism, The Literary Influence of Academies*.

Three or two hours a week.

HONOUR COURSES

1a. Composition: The writing of at least four original compositions during the session.

1c. (i) CHAUCER, *Prologue, Nun's Priest's Tale*, with some outline of the history of the English language.

One hour a week.

(ii). Familiarity with and intelligent appreciation of the following texts: *Sir Patrick Spens, Edward, The Braes o' Yarrow, Waly Waly*, DRYDEN, *A Song for St Cecilia's Day, Alexander's Feast*; THOMSON, extracts from *Summer and Winter*; GRAY, *Sprang, Eton College, Elegy*, GOLDSMITH, *Deserted Village*, BURNS, *Address to the De'il, To John Lapraik, To a Mouse, Last May a Braw Wooer, A Man's a Man for a' that*; WORDSWORTH, *Sonnets* (omitting *Personal Talk, Scorn not the Sonnet, A Poet!—he hath put his heart to school*); SCOTT, *Rosabelle, Brignall Banks, Lochinvar, The Antiquary*; KEATS, *On Chapman's Homer, "Bright Star! would I", The Eve of St Agnes, On a Grecian Urn, To a Nightingale, To Autumn*; GEORGE ELIOT, *The Mill on the Floss*; BROWNING, *Fra Lippo Lippi, Andrea del Sarto, The Bishop orders his Tomb, an Epistle*, TENNYSON, *The Palace of Art*; RUSKIN, *Crown of Wild Olive*, the selections from Canadian Poets in *Representative Poetry*; CARLYLE, *The Hero as Prophet, The Hero as Poet*; ARNOLD, *The Study of Poetry (Essays in Criticism, second series)*. [The poetical selections in this paragraph are contained in *Representative Poetry*, third edition, Students' Book Department, University of Toronto.]

Two hours a week.

2a. Composition: The writing of at least four original compositions during the session.

2b SHAKESPEARE, *Romeo and Juliet, Henry IV, Parts I. and II., Twelfth Night, Hamlet*.

Two hours a week.

2c. An outline of later seventeenth and earlier eighteenth century literature, with special study of the following texts: DRYDEN, *Essay of Dramatic Poesy, Preface to the Fables*; BUNYAN, *Grace Abounding*; SWIFT, *Gullw r' Travels*, Books I. and II., ADDISON and STEELE, *Sir Roger de Coverley* (Cassell's National Library); DEFOE, *Robinson Crusoe*; JOHNSON, *Preface to Shakespeare, Lives of the Poets (Dryden, Addison and Pope)*; BOSWELL, *Life of Johnson* (May 16, 1763—end of 1764; April 3, 1773—end of May, 1773; March 21, 1775—May 21, 1775); selections from DRYDEN to GRAY inclusive in *Representative Poetry*.

Two hours a week.

3a. The writing of essays on subjects connected with one of the Third Year courses in literature.

3b. Transition and earlier nineteenth-century literature: The selections from GOLDSMITH to BYRON inclusive in *Representative Poetry*; LOCKE, *Essay on the Human Understanding, Book I.*; GOLDSMITH, *Vicar of Wakefield*;

BURKE, *American Taxation, Conciliation with America*; the essays by WORDSWORTH, COLERIDGE, LAMB, and HAZLITT in *English Critical Essays of the Nineteenth Century* (World's Classics); JANE AUSTEN, *Pride and Prejudice*; LAMB, *Poor Relations, Detached Thoughts on Books and Reading, Christ's Hospital*; NEWMAN, *Idea of a University* (*Knowledge its Own End, and Knowledge in Relation to Learning*); CARLYLE, *Signs of the Times, Characteristics*.

Three or two hours a week

3c. BRIGHT, *Old English Grammar* and selections from the *Reader*; outlines of Old English literature.

Two hours a week.

3d. Seventeenth-century literature with special study of MILTON, *L'Allegro, Il Penseroso, Arcades, Comus, Lycidas, Sonnets, Paradise Lost, Paradise Regained, Samson Agonistes*; selections from JONSON to BUTLER inclusive in *Representative Poetry*; MILTON, *Of Reformation, The Reason of Church Government, Of Education, Areopagitica*; BROWNE, *Religio Medici*.

Two hours a week.

4a. The writing of essays on subjects connected with one of the Fourth Year courses in literature.

4b. Later nineteenth-century literature: selections from SHELLEY to MORRIS in *Representative Poetry*, selections from *An Anthology of Modern Verse* (Methuen), essays by SHELLEY, ARNOLD, RUSKIN, MILL and BAGEHOT in *English Critical Essays of the Nineteenth Century* (World's Classics); CARLYLE, *Sartor Resartus* (Books I. and II.); THACKERAY, *Vanity Fair*; ARNOLD, *The Function of Criticism, The Literary Influence of Academies*.

Three or two hours a week.

4c. (i) Historical English grammar.

(ii) A course on CHAUCER and his age with special study of the following selections: *The Prologue to the Canterbury Tales, The Knight's Tale, Sir Thopas, The Nonne Preestes Tale, Complaynte unto Pite, Parlement of Fowles, Wordes unto Adam, The Former Age, Fortune, Truth, Proverbs, Prologue to Legend of Good Women*. [Chaucer (Oxford Press) or the Globe Chaucer (Macmillan) or MacCracken's Chaucer (Yale University Press); *The Chaucer Epoch*, by J. C. Stobart (Arnold).]

Two hours a week.

4d. NEWMAN, *Apologia, The Idea of a University, Preface and Discourses V.-VIII.*; J. S. MILL, *Essays on Bentham, Coleridge, Civilization, Utilitarianism, Liberty*; CARLYLE, *Past and Present, Book III., Shooting Niagara—and After?*; RUSKIN, *Unto this Last*; ARNOLD, *Culture and Anarchy, Democracy, Equality*; MORLEY, *Compromise*.

Two hours a week.

4e. The Development of the English Drama to 1642: reading of the following texts: *Noah's Flood, The Sacrifice of Isaac, Secunda Pastorum,*

Everyman (Pollard's *Miracle Plays*); UDALL, *Ralph Roister Doister*; LYLY, *Endymion*; GREENE, *Friar Bacon*; MARLOWE, *Tamburlaine*, Part I. *Edward II.*; KYD, *Spanish Tragedy*, SHAKESPEARE, *Othello*, *King Lear*, *Antony and Cleopatra*, *The Tempest*, BEN JONSON, *Every Man in his Humour*, BEAUMONT AND FLETCHER, *Philaster*, WEBSTER, *Duchess of Malfi*.

Two hours a week.

GERMAN

UNIVERSITY COLLEGE:

W. H. VAN DER SMISSEN, M.A., PH.D.....	<i>Professor Emeritus.</i>
G. H. NEEDLER, B.A., PH.D.....	<i>Professor.</i>
B. FAIRLEY, M.A., PH.D.....	<i>Associate Professor.</i>
T. J. HEDMAN, PH.B.	<i>Assistant Professor.</i>
G. E. HOLT, M.A., MUS.BAC.	<i>Lecturer.</i>

VICTORIA COLLEGE:

L. E. HORNING, B.A., PH.D.....	<i>Professor.</i>
A. E. LANG, M.A.....	<i>Professor.</i>
MISS M. E. T. ADDISON, B.A.....	<i>Lecturer.</i>
J. D. ROBINS, B.A.....	<i>Lecturer.</i>

TRINITY COLLEGE:

A. H. YOUNG, M.A., D.C.L.....	<i>Professor.</i>
MISS L. C. SCOTT, M.A.....	<i>Lecturer.</i>

ST. MICHAEL'S COLLEGE:

REV. M. J. OLIVER, B.A., PH.M.....	<i>Associate Professor.</i>
S. M. PERPETUA, B.A.....	<i>Lecturer.</i>

PASS COURSES

1a. Grammar; dictation; pronunciation; translation from modern German; translation from English into German. Four hours a week.

1b. Reading of easy prescribed texts in scientific German; translation of similar passages at sight. Two hours a week.

2a. Grammar; dictation; pronunciation; translation from modern German; translation from English into German. Three hours a week.

2b. Reading of prescribed texts in scientific German; translation of scientific German at sight. Two hours a week.

3a. Grammar; dictation; pronunciation; translation from English into German; translation at sight from modern German; outlines of the history of German literature to 1740, life and works of LESSING and SCHILLER, with special attention to LESSING, *Minna von Barnhelm*; SCHILLER, *Poems* (ed. Nollen), *Wilhelm Tell*. Supplementary Reading. Three hours a week.

4a. Grammar; dictation; pronunciation; translation from English into German; translation at sight from modern German; outlines of the history

of German literature from 1740; life and works of GOETHE with special attention to *Poems* (ed. Schütze), *Faust*, Part I. Supplementary reading. Three hours a week.

HONOUR COURSES

1c. Translation at sight from modern German; FIEDLER, *Book of German Verse* (pages 1-143 inc.); KELLER, *Die drei gerechten Kammacher*; ERNST, *Flachsmann als Erzieher*. Supplementary reading. Two hours a week.

1d. Oral term work; composition. One hour a week.

1e. Political and social history of Germany to 1500. One hour a week.

1f. Reading of selected texts in German. Two hours a week.

1g. Composition, writing of business letters; practice in reading and writing German script; oral exercises. One hour a week.

2c. Translation at sight from modern German; history of German literature in the eighteenth century with special attention to LESSING and SCHILLER; LESSING, *Emilia Galotti*, *Nathan der Weise*; SCHILLER, *Wallensteins Tod*, *Wilhelm Tell*. Supplementary reading. Two hours a week.

2d. Oral term work, composition. One hour a week.

2e. Political and social history of Germany from 1500 to 1713. One hour a week.

2f. Practice in business correspondence and conversation in German. Reading of German texts. Three hours a week.

3b. Life and works of GOETHE with special attention to *Lyrical Poems* (ed. Schütze), *Die Leiden des jungen Werther*, *Iphigenie auf Tauris*, *Dichtung und Wahrheit* (ed. von Jagemann), *Faust*, Part I. Supplementary reading. Three hours a week.

3c. Oral term work; composition. One hour a week.

3d. Political and social history of Germany from 1713 to 1815. One hour a week.

3e. Essays on prescribed topics.

4b. A general acquaintance with the development of German literature of the nineteenth century, with special attention to KLEIST, *Der zerbrochene Krug*; HEINE, *Zur Geschichte der Religion und Philosophie in Deutschland*, *Die romantische Schule*; HEBBEL, *Herodes und Mariamne*; KELLER, *Dietegen*; GRILLPARZER, *Die Jüdin von Toledo*; FONTANE, *Effi Briest*; HAUPTMANN, *Der arme Heinrich*. Supplementary reading. Two hours a week.

4c. Oral term work; composition. One hour a week.

4d. Middle High German grammar; history of the German language; history of Middle High German literature; WRIGHT, *Middle High German Primer*. One hour a week.

4e. Political and social history of Germany from 1815 to the present. One hour a week.

4f. Essays on prescribed topics.

FRENCH

UNIVERSITY COLLEGE:

JOHN SQUAIR, B.A.....	<i>Professor Emeritus.</i>
J. H. CAMERON, M.A.....	<i>Professor.</i>
J. S. WILL, B.A., PH.D.....	<i>Professor.</i>
ST. E. DE CHAMP, B. ÈS L., O.I.P.....	<i>Associate Professor.</i>
F. C. A. JEANNERET, B.A.....	<i>Associate Professor.</i>
M. MORAUD, L. ÈS L., AGRÉGÉ DE L'UNIVERSITÉ...	<i>Associate Professor.</i>
H. S. MCKELLAR, B.A.....	<i>Assistant Professor.</i>
W. D. EVANS, B.A.	<i>Lecturer.</i>
J. G. ANDISON, A.M.....	<i>Lecturer.</i>
L. A. BIBET.....	<i>Instructor.</i>
W. J. MCANDREW, M.A.....	<i>Instructor.</i>
A. E. TILBY.....	<i>Instructor.</i>

VICTORIA COLLEGE:

H. E. FORD, M.A., PH.D.....	<i>Professor.</i>
VICTOR DE BEAUMONT, A.M.....	<i>Associate Professor.</i>
MISS M. C. ROWELL, B.A.....	<i>Lecturer.</i>
A. LACEY, M.A.....	<i>Lecturer.</i>

TRINITY COLLEGE:

R. E. L. KITTREDGE, M.A.....	<i>Professor.</i>
A. A. NORTON, B.A.....	<i>Lecturer.</i>
L. A. BIBET	<i>Instructor.</i>
A. LACEY, M.A.....	<i>Instructor.</i>
MISS L. C. SCOTT, M.A.....	<i>Reader.</i>

ST. MICHAEL'S COLLEGE:

REV. W. H. MURRAY, B.A.....	<i>Associate Professor.</i>
MISS ELIZABETH O'DRISCOLL, M.A.....	<i>Associate Professor.</i>
REV. J. E. PAGEAU.....	<i>Lecturer.</i>
S. M. AGNES, B.A.....	<i>Lecturer.</i>

NOTE.—In order to be a member of any class in French, a student must satisfy the instructor as to his ability to profit by the instruction given. Supplementary reading under the direction of the staff will be required of all students in all years.

Students taking the full honour French course must make satisfactory progress in the oral use of the language. Opportunity for this work will be provided in each of the four years.

PASS COURSES

1a. Grammar; dictation; translation from English into French; translation at sight from modern French. The following texts are prescribed: BORNIER, *La Lizardière*; MERIMÉE, *Quatre contes*; ERCKMANN-CHATRIAN,

Le Juif Polonais; FEUILLET, *Le Village*; DAUDET, *Lettres de mon moulin*. Four hours a week.

1b. Study of prescribed texts and sight work of scientific nature. Two hours a week.

2a. Grammar; dictation; translation from English into French; translation at sight from modern French. The following texts are prescribed: LOTI, *Le Pêcheur d'Islande*, PAILLERON, *Le Monde où l'on s'ennuie*; COPPÉE, *Pour la couronne*; French *Short Stories* (ed. Buffum) or GEORGES DURUY, *Histoire sommaire de la France, classe de septième*, together with FRANCE, *Le Livre de mon ami*. Three hours a week.

2b. Study of prescribed texts and sight work of scientific nature. Two hours a week.

3a. Standards of the classical age and the main ideas of the eighteenth century, studied in French literature from Malherbe to the *philosophes*. PELLISSIER, *Précis de l'histoire de la littérature française*, pp. 139-364; French *Prose of the XVIIth Century* (ed. Warren), CORNEILLE, *Le Cid*; MOLIÈRE, *Le Misanthrope*, RACINE, *Andromaque*; LA FONTAINE, *Fables*; VOLTAIRE's *Prose* (ed. Cohn and Woodward), Supplementary reading. Translation from English into French; translation at sight from modern French. Three hours a week.

4a. Forces and movements in French literature since 1750. PELLISSIER, *Précis de l'histoire de la littérature française*, pp. 365-544; *Pages choisies de J.-J. Rousseau* (ed. Rocheblave); French *Lyrics of the XIXth Century* (ed. Henning); HUGO, *Hernani*, BALZAC, *Gobseck*; AUGIER, *Les Effrontés*; *Quelques contes des romanciers naturalistes* (ed. Dow and Skinner); ROSTAND, *Cyrano de Bergerac*; BAZIN, *Le Blé qui lève*; Supplementary reading. Translation from English into French; translation at sight from modern French. Three hours a week.

COURSES FOR STUDENTS IN COMMERCE

1c. Study of the following texts: BORNIER, *La Lisardière*; MERIMÉE, *Quatre contes*; ERCKMANN-CHATRIAN, *Le Juif Polonais*; FEUILLET, *Le Village*; DAUDET, *Lettres de mon moulin*. Two hours a week.

1d. Exercises in French grammar and composition. One hour a week.

1e. Practical work in oral French. One hour a week.

2c. Study of the following texts: LOTI, *Le Pêcheur d'Islande*; PAILLERON, *Le Monde où l'on s'ennuie*; French *Short Stories* (ed. Buffum) or GEORGES DURUY, *Histoire sommaire de la France, classe de septième*, together with FRANCE, *Le Livre de mon ami*; French of *To-Day* (Bacourt and Cunliffe). Two hours a week.

2d. Exercises in French grammar and composition. One hour a week.

2e. Practical work in oral French. One hour a week.

3b. Practical exercises in French conversation and commercial correspondence. Study of the following texts: French of *To-day* (Bacourt and

Cunliffe); *La France qui travaille* (ed. Jago); *Commercial French* (ed. Poole and Becker). Two hours a week.

4b. Course for Commerce Students. (To be announced.) Two hours a week.

HONOUR COURSES

1f. Grammar; dictation; pronunciation; translation from English into French; translation at sight from modern French.

Survey of French literature with special reference to the mediæval period. The following texts are prescribed for critical study: AUGIER, *Le Gendre de Monsieur Poirier*; FRANCE, *Le Crime de Sylvestre Bonnard*; DAUDET, *Lettres de mon moulin*; *Quelques contes des romanciers naturalistes* (ed. Dow and Skinner); *French Lyrics* (ed. Canfield). Four hours a week.

1g. Outlines of Mediæval History.

2f History of French literature from the middle of the sixteenth century to the end of the seventeenth century, illustrated by the reading of texts from which the following are prescribed for critical study: *French Verse of the XVIIth Century* (ed. Wright), BOSSUET, *Oraison funèbre de Louis de Bourbon*; LA BRUYÈRE, *Caractères (De la Cour)*; CORNEILLE, *le Cid*; RACINE, *Andromaque*; MOLIÈRE, *Le Bourgeois gentilhomme*, *l'Avare*, *le Misanthrope*; BOILEAU, *l'Art poétique*; LA FONTAINE, *Fables* (ed. Clément). Two hours a week.

2g. History of France in the sixteenth and seventeenth centuries.

2h. Simple narrative composition; translation from English into French; translation at sight. One hour a week.

3c. History of French literature during the eighteenth century, illustrated by texts from which the following are prescribed for critical study: LESAGE, *Turcaret*; MARIVAUX, *Le Jeu de l'amour et du hasard*; MONTESQUIEU, *Esprit des lois* (Books I, II, III); VOLTAIRE, *Zaire*, *Zadig*, *Micro-mégas*, *Prose* (ed. Cohn and Woodward, pp. 1-73, 118-162, 294-347); ROUSSEAU, *Pages choisies* (ed. Rocheblave); BEAUMARCHAIS, *Le Mariage de Figaro* or *Le Barbier de Séville*; ANDRÉ CHÉNIER (ed. Becq de Fouquières), *Bucoliques I and XV*, *Hymnes et Odes III and VII*; CHATEAUBRIAND, *Atala*.

3d The Classic ideal as represented in critical writings from the Pléiade to the beginnings of Romanticism. The following texts will be used: DU BELLAY, *Défense et illustration de la langue française*; BOILEAU, *Selections from the Satires, Epistles, and the Art poétique*; VOLTAIRE, *Essai sur la poésie épique*; DIDEROT, *De la poésie dramatique*; ROUSSEAU, *Lettre à M. d'Alembert*; MME DE STAËL, *De la littérature*.

3e. History of France in the eighteenth century.

3f. Composition; translation from English into French; translation at sight.

3g. Essays on prescribed topics.

4c. History of French literature during the nineteenth century, illustrated by the reading of texts from which the following are prescribed for critical study: LAMARTINE, *Œuvres choisies, Poésie* (ed. René Waltz); HUGO, *Poems* (ed. Canfield), *Notre-Dame de Paris* (ed. Léon Delbos) or *Quatre-vingt-treize, Le Preface du Cromwell, Hernani*; BALZAC, *Père Goriot, Pierrette*; SAINTE BEUVE, *Causeries du Lundi* (ed. Saintsbury); AUGIER, *Les Effrontés*; MICHELET and TAINE in *Extraits des historiens français du XIX^e siècle* (ed. Jullian); LECONTE DE LISLE, *Poèmes barbares*; ALPHONSE DAUDET, *Fromont jeune et Risler aîné*.

4d. A short course in contemporary literature.

4e. History of France from the beginning of the nineteenth century to the present.

4f. Composition; translation from English into French; translation at sight from French authors of any period.

4g. Elementary course in Old French.

4h. Essays on prescribed topics.

ITALIAN AND SPANISH

M. A. BUCHANAN, B.A., PH.D.	Professor.
J. E. SHAW, A.B., PH.D.	Professor.
E. GOGGIO, M.A., PH.D.	Assistant Professor.
G. C. PATTERSON, B.A.	Lecturer.
J. PIJOAN, L.LITT.	Special Lecturer.

ITALIAN

1a. Grammar; pronunciation and dictation; translation; oral exercises. Text-books: WILKINS AND ALTROCCHI, *Italian Short Stories*; WILKINS, *First Italian Book*. Three hours a week.

1b. (For students who have matriculated in Italian). The same as 2.

2. Grammar; dictation; translation; composition; oral exercises. Text-books: GRANDGENT, *Italian Grammar*; *L'Italia* (Wilkins and Marinoni); GIACOSA, *Tristi Amori* (Altrocchi and Woodbridge). Three hours a week.

3a. Grammar; translation. Text-book: CARDUCCI, *Antologia* (ed. Mazzoni e Picciola). One hour a week.

3b. History of Italian literature: the later Renaissance. Text-books: CASTIGLIONE, *Il Cortegiano* (ed. Cian); CELLINI, *Vita* (ed. Bianchi); TASSO, *Gerusalemme Liberata* (ed. Ferrari); ROSSI, *Storia della Letteratura Italiana*. Two hours a week.

3c. Composition in Italian and oral exercises; lectures in Italian on the art, history, and literature of Italy. Supplementary reading: SYMONDS, *The Age of Despots*. Two hours a week.

3d. Essays on prescribed topics.

3e. (For students in Commerce.) Reading of prescribed texts; composition and oral practice; commercial correspondence. Text-books: HECKER, *Il Piccolo Italiano*; ORSI, *Italia Moderna*. Three hours a week.

4a. History of Italian literature; the early Renaissance. Text-books: DANTE, *Divina Commedia* (ed. Grandgent); *Vita Nuova*; PETRARCH, *Rime* (ed. Carducci e Ferrari); ROSSI, *Storia della Letteratura Italiana*. Three hours a week.

4b. Composition and oral exercises; lectures in Italian on the art, history, and literature of Italy. Supplementary reading: NOVATI, *Freschi e Minii del Duecento*. Two hours a week.

4c. Essays on prescribed topics.

SPANISH

1a. Grammar; pronunciation and dictation; translation; oral exercises. Text-books: CRAWFORD, *First Book in Spanish*; HANSSLER AND PARMENTER, *A Spanish Reader*. Three hours a week.

1b. Elementary Spanish for students in the Faculty of Applied Science.

1c. (For students who have matriculated in Spanish.) The same as 2a.

2a. Grammar; dictation; translation; composition; oral exercises. Text-books: ISLA, *Gil Blas*; COOL, *Spanish Composition*; ESPINOSA, *Composition*. Three hours a week.

2b. (For students who have matriculated in Spanish.) For pass the same as 3a; for honours VALERA, *Pepita Jiménez*; PÉREZ GALDÓS, *Doña Perfecta*. Composition in Spanish and oral exercises; lectures in Spanish. Supplementary reading: AZORÍN, *El Paisaje de España*. Three hours a week.

3a. History of Spanish literature in the nineteenth century. Text-books: MORATÍN, *El Sí de las Niñas*; ESPRONCEDA, *El Estudiante de Salamanca* (ed. Northup); VALERA, *Pepita Jiménez* (ed. Lincoln); PÉREZ GALDÓS, *Doña Perfecta*; ECHEGARAY, *El Gran Galeoto* (ed. Espinosa); BENAVENTE, *Los Intereses Creados* (ed. Van Horne); FITZMAURICE-KELLY, *Historia de la Literatura Española*. Three hours a week.

3b. Composition in Spanish and oral exercises; lectures in Spanish on the art, history, and literature of Spain and Spanish America. Supplementary reading: AZORÍN, *El Paisaje de España*. Two hours a week.

3c. Essays on prescribed topics.

3d. (For students who have matriculated in Spanish). For honours the same as 4a, 4b; for pass the same as 4a.

3e. (For students in Commerce.) VALERA, *Pepita Jiménez*; PÉREZ GALDÓS, *Doña Perfecta*. Composition in Spanish and oral exercises; lectures in Spanish. Supplementary reading: MCHALE, *Commercial Spanish*; BLASCO IBÁÑEZ, *Vistas Sudamericanas*. Three hours a week.

4a. History of Spanish literature: the Golden Age. Text-books: CERVANTES, *Don Quijote*; *Lazarillo de Tormes* (ed. Cejador); LOPE DE

VEGA, *Amar sin saber a quién*; CALDERÓN, *La Vida es Sueño*; *Spanish Ballads* (ed. Morley); FITZMAURICE-KELLY, *Historia de la Literatura Española*. Three hours a week.

4b. Composition and oral exercises; lectures in Spanish on the art, history, and literature of Spain and Spanish America. Supplementary reading: AZORÍN, *Al Margen de los Clásicos*. Two hours a week.

4c. Essays on prescribed topics.

PHONETICS

Elementary physiological phonetics, with practical exercises in the sounds of the modern languages studied. One hour a week in the Second Year of the Modern Language Course.

HISTORY

G. M. WRONG, M.A., LL.D.	.....	Professor.
R. HODDER WILLIAMS, M.A.	.....	Associate Professor.
G. M. SMITH, M.A.	.....	Associate Professor.
R. FLENLEY, M.A., B.LITT.	.....	Associate Professor.
W. P. M. KENNEDY, M.A., LITT D.	.....	Assistant Professor.
H. H. WRONG, B.A.	.....	Lecturer.
J. B. BREBNER, B.A.	.....	Lecturer.
W. S. WALLACE, M.A.	.....	Special Lecturer.
S. H. HOOKE, M.A., B.D.	.....	Special Lecturer.

FIRST YEAR

1a. The History of Canada to 1763.

1b. The History of England from 1485 to 1558 with an outline of the chief features of the Continental Renaissance.

1c. An introduction to Mediaeval History.

1d. An introduction to Constitutional History.

1e. An introduction to Historical Geography.

SECOND YEAR

2a. (i) The History of the British Empire from 1763 to the present time, with special reference to Canada.

(ii) The American Revolution and the framing of the Constitution of the United States.

2b. The History of England from 1558 to 1660.

2c. The Constitutional History of England to 1603.

2d. The Middle Ages: a general study of mediaeval society and an outline of the principal movements of the period.

2e. Selected texts in Modern History.

THIRD YEAR

3a. Eighteenth Century Europe, the French Revolution and the Age of Napoleon.

3b. The History of England from 1660 to 1815.

3c. The Constitutional History of England since 1603. The working of modern British Institutions.

3d. The British Constitution and its development.

FOURTH YEAR

4a. British and European History from 1815 to the present time.

(i) British Domestic History and Foreign Policy.

(ii) Modern France, *or* Modern Germany *or* Modern Italy.

(iii) The History of the United States in the 19th Century with special reference to the Civil War.

4b. The History of England since 1815.

4c. The Constitutional History of Canada with references to Australia and South Africa and to other federal systems.

THIRD AND FOURTH YEARS

5. A special subject studied with reference to original authorities. The following subjects, of which one shall be chosen, are offered for the year 1920-21:

(a) The American Revolution, 1775-1781, with special reference to Loyalist opinion.

(b) The Revolutions of 1848.

(c) Modern Egypt—from the British occupation to the British Protectorate.

(d) The Peace Treaties of 1919.

(e) The Theory and Practice of Representative Government.

6. A Course in Political Theory based on the study of Aristotle: *Politics*. Students will be required to show a knowledge of the history of political thought and to read from the works of Machiavelli, Hobbes, Rousseau, Burke, J. S. Mill, and Maine.

ALL YEARS

Students are examined in Historical Geography in connection with the periods prescribed for Political History in each year.

Essays are required from Honours students in tutorial classes and from students of the Pass Course.

GENERAL STATEMENT

The Honour Course in Modern History includes the following historical subjects: (1) The Social and Political History of England since 1485, (2) the continuous Constitutional History of England (on a documentary basis) and the working of modern British Institutions, (3) an introductory study of European History in the Middle Ages and during the Renaissance Period, (4) the general History of Europe since the French Revolution, (5) the continuous History of Canada (including Constitutional History and the working of present day Canadian Institutions), (6) the continuous History of the American Colonies and the United States (with special stress on the Revolutionary Period and the Civil War), (7) a special historical subject, studied with reference to original authorities.

It also includes: (1) Periods of English Literature connected in each year with the periods of English Social and Political History, (2) Political Theory, (3) Economic History with Economic Theory, (4) One Modern Language (French or German) for reading purposes, (5) Political and Descriptive Geography.

The historical prescription in the Honour Course of Political Science lays stress upon the Political and Constitutional History of Canada and England and upon General History since 1763.

In the English and History Course, the stress is laid upon the Social and Political History of England but students may take additional options of General History in the Third and Fourth Years.

The Pass Course in Modern History includes: (1) the Mediaeval Period, (2) the general History of Europe (including Great Britain) since the French Revolution, (3) the History of Canada since 1763 (including Constitutional History), (4) the History of the American Colonies and the United States since 1763, (5) the working of modern British Institutions.

POLITICAL ECONOMY

JAMES MAVOR, PH.D.....	<i>Professor.</i>
R. M. MACIVER, M.A., D.PHIL.....	<i>Professor.</i>
C. R. FAY, M.A., D.Sc.....	<i>Professor.</i>
W. JACKMAN, M.A.....	<i>Associate Professor.</i>
G. E. JACKSON, B.A.....	<i>Associate Professor.</i>
H. A. INNIS, M.A., PH.D.....	<i>Lecturer.</i>
H. R. KEMP, M.A.....	<i>Lecturer.</i>
V. W. BLADEN, B.A.....	<i>Instructor.</i>

1. (a) Term essays (b) January examinations may be held in certain subjects concluded in the first term.

Second Year: The first essay in the Second Year shall be a topographical and economic account of the student's home town, city, county or district. A printed outline indicating the plan to be followed may be obtained from

the Registrar. This essay shall be due on the second Wednesday in November. The other essays are on subjects to be prescribed during the session.

Third Year: The subjects are to be selected after consultation with the Professor on topics connected with Economic Theory.

Fourth Year: The subjects are to be selected after consultation with the staff, on topics connected with the work of the year.

FIRST YEAR

2. Economic Geography. The course consists of an account of Physical Geography in its economic aspects, the natural resources of the chief countries, ways and communications, ancient and modern trade routes together with an account of the more important economic changes of modern times. Books recommended: NEWBIGIN, *Modern Geography*; LYDE, *Short Commercial Geography*; GREGORY, KELLER AND BISHOP, *Physical and Commercial Geography*; ADAM, *Commercial Geography*; CHISHOLM, *Commercial Geography, Consular Reports*, Great Britain and United States. Thirteen hours.

3. Elements of Economics. An introduction to the study of economic theory. The following text-book is recommended, JOHNSON, *Introduction to Economics*. Twenty-five hours.

4. Elements of Commerce. A general account of commercial practice, movements of prices and their causes. The following books are recommended: CLAY, *Economics for the General Reader*; MARSHALL, *Readings in Industrial Society*. Twenty-five hours.

SECOND YEAR

5. Principles of Economics. The following books will be found useful: TAUSSIG, *Principles of Economics*; PIERSON, *Principles of Economics*; MARSHALL, *Principles of Economics*; MILL, *Principles of Political Economy*; ADAM SMITH, *Wealth of Nations*; WICKSTEED, *Common Sense of Political Economy*; SMART, *Distribution of Income*; CARVER, *Distribution of Wealth*; HOBSON, *Evolution of Modern Capitalism*; LAYTON, *Introduction to the Study of Prices*. Fifty hours.

6. Canadian Economic History. The course attempts to study the economic development of Canada with a view to an understanding of modern Canadian problems. The study begins with a consideration of the early growth of the three distinct geographic areas of Canada in roughly the St. Lawrence drainage basin, the Hudson Bay drainage basin, and the Pacific Coast drainage basin. It continues by tracing the growth of these areas to their consequent economic union and to the later developments characteristic of recent economic history. No text-book is required. The student is expected to acquaint himself with the important primary and the reliable secondary sources of Canadian Economic history. A thorough knowledge of Canadian geography is essential. Outline maps are used

throughout the course. Ability to read French is assumed on the part of students. Fifty hours.

7. Economic History and Theory with special reference to the eighteenth and nineteenth centuries. Books recommended for study: CLAY, *Economics for the General Reader*; GIBBINS, *Industry in England*; TOYNBEE, *Industrial Revolution*; WEBB, *History of Trade Unionism in England*; HOBSON, *Evolution of Modern Capitalism*; ADAM SMITH, *Wealth of Nations*; BLAND, BROWN AND TAWNEY, *English Economic History, Select Documents*; DICKENS, *Hard Times*; DISRAELI, *Sybil*. Twenty-five hours.

8. General Introduction to the Study of Economics. For pass students. Elements of Economic Theory, Sketch of Economic History, and of important social changes and movements. GIDE, *Political Economy*. Fifty hours.

THIRD YEAR

9a. Advanced Economic Theory. A course dealing with the evolution of economic thought through the principal schools from the Physiocrats to the present, and giving special attention to the criticism of current theories of value, interest, rent, and wages. Books recommended: ADAM SMITH, *Wealth of Nations*; MALTHUS, *Essay on Population*; RICARDO, *Principles of Political Economy*; J. S. MILL, *Principles of Political Economy*; MARX, *Capital*; BOHM-BAWERK, *Capital and Interest*, and *The Positive Theory of Capital*; MARSHALL, *Principles of Economics*, and *Industry and Trade*; CANNAN, *Theories of Production and Distribution*; HOBSON, *Economics of Distribution*, J. B. CLARK, *Distribution of Wealth*; DALTON, *Inequalities of Income*, HANEY, *History of Economic Thought*, GIDE AND RIST, *History of Economic Doctrines*. Seventy-five hours.

9b. An introductory course for Honour students in Philosophy on the subject matter of course 9a. Fifty hours.

10. Labour Problems. The evolution of trade union organizations, types and methods. The problems of industrial relationship and the various schemes put forward for the attainment of industrial harmony or peace. Wages and other forms of payment in relation to productivity. Books recommended: WEBB, *History of Trade Unionism*, and *Industrial Democracy*; COMMONS, *History of Labour in the U.S.*, and *Principles of Labour Legislation*; COLE, *The World of Labour*, and *Introduction to Trade Unionism*; HOXIE, *Trade Unionism in the U.S.*; *Bulletins of the U.S. Bureau of Labour Statistics*, *Bulletins of the International Labour Office*, *Board of Trade Labour Gazette* (England), *The Labour Gazette* (Canada). Twenty-five hours.

11. Money, Credit, Prices and Foreign Exchange. Measurement and explanation of changes in general prices; the gold standard; inflation of currency and credit; economic effects of changing prices; proposals for currency reform; the foreign exchanges; external borrowing in peace and war; the settlement of international indebtedness; the payment of war

indemnities. The following books are recommended: BARBOUR, *The Standard of Value*; KEMMERER, *Money and Prices*; WITHERS, *The Meaning of Money*; FISHER, *The Purchasing Power of Money*; LAUGHLIN, *Principles of Money*; CLARE, *A B C of the Foreign Exchanges*; BASTABLE, *Theory of International Trade*; JOHNSON, *Report on the Canadian Banking System*; NICHOLSON, *War Finance*; WHITE, *Canada's War Finance*; CASSEL, *Memoranda on the World's Monetary Problems*. Twenty-five hours.

12. Banking. Nature and functions of a bank; bank notes, functions and relations of different kinds of banks and financial institutions; extent and management of reserves in different countries; comparative study of banking policy at home and in the chief foreign countries; international banking. Books recommended: DUNBAR, *Theory and History of Banking*; BAGEHOT, *Lombard Street*, LAVINGTON, *The English Capital Market*; CONANT, *Modern Banks of Issue*; SCOTT, *Money and Banking*; HOLDSWORTH, *Money and Banking*; Publications of the National Monetary Commission (U.S.). Twenty-five hours.

13. Statistics. General introduction to the use of statistics: methods of collection, tabulation, graphic presentation, analysis, and application to various types of economic problems. Survey of some of the most useful sources of statistical information. A considerable part of the course is devoted to laboratory work, under supervision, in which statistical methods are applied to the study of current questions. Text-books and works of reference: SECRIST, *Manual of Statistical Methods*; KING, *Elements of Statistical Method*; BOWLEY, *Introductory Manual of Statistics*, and *Elements of Statistics*; MEITZEN, *History, Theory and Technique of Statistics* (supp. vol. to *Annals of American Academy of Political and Social Science*, Philadelphia, 1891); W. C. MITCHELL, *Index Numbers of Wholesale Prices in the United States and Foreign Countries* (Bulletin 173 of U.S. Bureau of Labour Statistics, 1915); BLOCK, *Traité Théorique et Pratique de Statistique*; GEORG VON MAYR, *Statistik und Gesellschaftslehre*; *Census Reports of Canada, Great Britain, and U.S.A.*; *Canada Year Book*; *Statesman's Year Book*; Publications of Royal Statistical Society; Publications of American Statistical Association; Reports of Ontario Bureau of Industries; *Labour Gazette* (Ottawa); and other publications to be indicated from time to time. Fifty hours.

14. Economic Theory. For pass students. Books recommended: ADAM SMITH, *Wealth of Nations*; MALTHUS on *Population*; RICARDO, *Political Economy*; GIDE AND RIST, *History of Economic Doctrines*; MARX AND ENGELS, *Communist Manifesto*; SPARGO, *Socialism*. Seventy-five hours.

FOURTH YEAR

15. Economic History. British Economic History from the middle ages to the present day, with special reference to the period from 1760 onwards; and the Economic History of the United States. Books recommended: ASHLEY, *Economic Organization of England*; USHER, *Introduction to the*

Industrial History of England; KNOWLES, *Industrial and Commercial Revolutions in Great Britain during the 19th Century*, FAY, *Life and Labour in the 19th Century*; BUXTON, *Finance and Politics*; PROTHERO, *English Farming Past and Present*, JACKMAN, *Transportation in Modern England*; ANDREADES, *History of the Bank of England*, DICEY, *Law and Opinion in England*; WEBB, *History of Trade Unionism*; BLAND, BROWN AND TAWNEY, *English Economic History, Select Documents*; ADAM SMITH, *Wealth of Nations* (Book IV), CALLENDER, *Economic History of the United States*, LIPPINCOTT, *Economic Development of the United States*, BOGART AND THOMPSON, *Readings in the Economic History of the United States*; RABBENO, *American Commercial Policy*. Fifty hours.

16. Transportation. Railway accounts and rates; principles of rate making as established by the railways, the regulative tribunals and the courts, railway policy in Canada and the other chief countries; railway discrimination, organization of ocean commerce; ocean freight-rates; shipping conferences and their results; relations of ocean and land transportation interests. Books recommended: BROWN, *Transportation Rates and their Regulation*; JOHNSON AND VAN METRE, *Principles of Railroad Transportation*; ACWORTH, *Elements of Railway Economics*, KNOOP, *Outlines of Railway Economics*; JOHNSON AND HUEBNER, *Principles of Ocean Transportation*; MACGIBBON, *Railway Rates and the Canadian Railway Commission*. Fifty hours.

17. Corporation Finance. Economic services of corporations; capitalization, detailed study of stocks and bonds; financing of extensions and improvements, management of incomes and reserves; dividend policy; insolvency, receiverships; reorganizations. Books recommended: HARTLEY WITHERS, *Stocks and Shares*; HEAD, *Corporation Finance*, GREENE, *Corporation Finance*, CONYNGTON, *Financing and Enterprise*; LOUGH, *Business Finance*; DAGGETT, *Railroad Reorganizations*, DEWING, *Corporate Promotions and Reorganizations*; GERSTENBERG, *Materials of Corporation Finance*. Fifty hours.

18. Public Finance and Administration. Principles and incidence of taxation; national and local finance, public debts and their redemption; the public domain; revenue systems of modern states; methods of central and local administration. Books recommended: SELIGMAN, *The Incidence of Taxation*; SELIGMAN, *Progressive Taxation* (American Econ. Assn., 1909); BASTABLE, *Public Finance*; LEROY BEAULIEU, *Science des Finances*, Livre 11, Chaps. 4, 5, 9, 10, PLEHN, *Public Finance*; COHN, *The Science of Finance*; SELIGMAN, *Essays on Taxation*; J. W. GRICE, *National and Local Finance*, SELIGMAN, *The Income Tax*; KENNAN, *Income Taxation*; PLEHN, *The Property Tax in California*, MAVOR, *Taxation of Banks in Canada*, *Taxation of Corporations in Canada* (State and Local Taxation Conference (1908)); LOWELL, *The Government of England*; REDLICH AND HURST, *Local Government in England*; *English Citizen Series* (Macmillan); *Reports of Conferences on Good City Government*. Fifty hours.

19. Comparative Politics and Political Philosophy. History and criticism of political theories. An account of the contemporary political systems of modern nations. The political institutions, methods of election of representatives and political parties of these countries, contemporary projects of change—direct legislation, the referendum, proportional representation. Books recommended: LOWELL, *The Government of England*; LOWELL, *Governments and Parties in Continental Europe*; BODLEY, *France*; HOWARD, *The German Empire*; BRYCE, *American Commonwealth*; CROMER, *Ancient and Modern Imperialism*; JEBB, *Colonial Nationalism*; HOBBS, *Leviathan*; LOCKE, *On Civil Government*; ROUSSEAU, *Social Contract*; SIDGWICK, *Elements of Politics*; POLLOCK, *History of the Science of Politics*, BONAR, *Philosophy and Political Economy*, RITCHIE, *Principles of State Interference*; SEELEY, *Introduction to Political Science*, MACKENZIE, *Introduction to Social Philosophy*; BARKER, *Political Thought of Plato and Aristotle*, and *Political Thought from Spencer to the Present Day*; LASKI, *Studies in the Problems of Sovereignty, and Authority in the Modern State*; DUGUIT, *The Law and the State*. Fifty hours.

20. Rural Economics. A study of rural interests from the standpoint of economic principles, the economy of land, labour and capital in agriculture; the problems of ownership and tenancy; rural credits; transportation in its vital relation to agriculture; the problems of marketing farm products; principles underlying the proper adjustment of rural and urban industries; rural social economy. Books recommended: Publications of the International Institute of Agriculture; reports of government and educational institutions dealing with important phases and problems of agriculture in Canada, England and United States; NOURSE, *Agricultural Economics*; FAY, *Cooperation at Home and Abroad*; DUNCAN, *Marketing, its Problems and Methods*; CHERINGTON, *The Elements of Marketing*, HERRICK, *Rural Credits*; WALLACE, *Agricultural Prices*, *Proceedings of the American Country Life Conference*. Fifty hours.

21. Business Administration. Special lectures by experts on aspects and methods of business administration. Twenty-five hours.

22. A General Sketch of Economic History. For pass students. Books recommended: ASHLEY, *Economic Organization of England*; KNOWLES, *Industrial and Commercial Revolutions in Great Britain during the 19th Century*; FAY, *Life and Labour in the 19th Century*; BOGART, *Economic History of the United States*. Seventy-five hours.

23. Social Problems. A post-graduate class held by the Head of the Department for candidates for the degree of M.A. and Ph.D. in subjects selected by them.

LAW

- T. H. BLACK, M.A., B.Sc., LL.B. *Professor of Roman Law and Jurisprudence.*
- A. R. CLUTE, B.A., LL.B. *Lecturer in Federal, English and Colonial Constitutional Law.*
- H. W. A. FOSTER, LL.B. . . *Lecturer in Commercial and International Law.*

1. History of English Law. Anglo-Saxon Customs and Dooms. The Norman century: feudal tenures and Church Courts. Foundation of the Common Law: writs and jury-trial. Legislation of Edward I. Expansion of the Common Law: entails, contracts and torts. Equity. Development by legislation and decisions. Struggle between Chancery and Common Law Courts in the reign of James I. Reform by Equity. Legislation and Common Law before the Reform Bill period. Rigidity of the Equity system. Progress by legislation in England and Ontario. For reference: MAITLAND AND MONTAGUE, *A Sketch of English Legal History* (Putnam, 1915), POLLOCK AND MAITLAND, *History of English Law* (Book I.), STORRY DEANS, *Student's Legal History*, JENKS, *Short History of English Law*.

2. Roman Law. 1 History. The early legal system and procedure by *legis actiones*. The Twelve Tables statute. Republican law: development by *jus civile* of the jurisconsults and by the praetor's edict; procedure by *formula*. The Principate: equity, *jus gentium* or *jus naturale*, development of rigidity in the law. Absolute Monarchy: codification by imperial legislation; Justinian's system. 2. Elements of Private Law: law of persons, family, and slaves. Law of inheritance, legacies and trust-bequests. Law of property. *Obligations*: contract and delict. Text-books: SOHM, *Institutes of Roman Law* (Ledlie's translation), SANDARS or MOYLE, *Justinian's Institutes*. For general reading and reference: GAIUS, *Institutes*. GIRARD, *Manuel*, or ROBY, *Roman Private Law*; chapter 44 of GIBBON, *Decline and Fall*; and the Article on "Roman Law" in last edition of *Encyclopædia Britannica*, or MUIRHEAD, *Historical Introduction to the Private Law of Rome*.

3. Jurisprudence. Scope of the science; definition and analysis of *law* and of *rights*; solution of disputes by inflexible rules or by juridical determination. Classification of legal rights and the departments of law. Sources of law and the juridical development of law. Jurisprudence of legal personality; family; succession; trusts; property; contract; delict or tort; evidence and procedure, public rights. Application of the methods of Jurisprudence to International Law. Text-books: HOLLAND, *Elements of Jurisprudence*; MAINE, *Ancient Law*, with Pollock's notes. For general reading and reference: SALMOND, *Jurisprudence*; MAINE, Lectures XII., XIII., in *Early History of Institutions*; POLLOCK, *First Book of Jurisprudence*; and BRYCE, *Lectures on History and Jurisprudence*.

4. A course in Federal Constitutional Law. The lectures deal with the essential features of federal government in a comparative view of the leading federal States. Special attention is given to the constitutions of

Canada, Australia, South Africa, and the United States. Text-books: LEFROY, *Short Treatise on Canadian Constitutional Law, Leading Cases in Canadian Constitutional Law*, KENNEDY, *Canadian Constitutional Documents*; BRYCE, *American Commonwealth* (Vol. I.); WOODROW WILSON, *Congressional Government*; POLEY, *Federal Systems of the United States and the British Empire*; BRYCE, *Studies in History and Jurisprudence*—Essay VIII, *The Constitution of the Commonwealth of Australia*.

5. A course in English Constitutional Law, in which the distinctive features of the English Constitution, the Rule of Law and the Sovereignty of Parliament, the two Houses of Parliament, the Cabinet and the relation to the Crown and Parliament, the prerogative, the conventions, the Courts, and the position of the subject under English law, are the principal topics. Students are recommended to read: DICEY, *Law of the Constitution*; ANSON, *Law and Custom of the Constitution*; THOMAS, *Leading Constitutional Cases*; LOW, *Governance of England*; MARRIOTT, *English Political Institutions*; RIDGE, *Constitutional Law*.

6. A course in Colonial Constitutional Law, in which the lectures deal with the various forms of colonial government with special reference to the self-governing colonies and to current problems. Students are recommended to read: TODD, *Parliamentary Government in the Colonies* (to page 318); and either TARRING, *Law in Relation to the Colonies*, JENKYNs, *British Rule and Jurisprudence beyond the Seas*; or the section on Colonies and Dependencies in HALSBURY, *Laws of England*.

7. International Law: 1. The nature, history and sources of international law. 2. The subjects of international law: the notion of sovereignty and the classification of states; the origin, continuity and extinction of states; the independence of states, self-preservation and intervention; the equality of states, the system of Europe and the Monroe Doctrine. 3. The objects of international law: territorial sovereignty and state territory; modes of acquiring territory; territorial, boundary and international waters; the open sea; jurisdiction; nationality and alienage. 4. International intercourse; international agents; treaties; negotiation, mediation and arbitration; forcible measures short of war. 5. War: general notions; immediate legal effect; enemy character of persons; rule of non-intercourse; laws of war with regard to enemy persons; enemy character of property and laws of war with regard to property; military occupation; enemy merchantmen, their crews and cargoes; prize courts; instruments and methods of naval warfare; non-hostile intercourse of belligerents. 6. Neutrality: nature and history; violation and cessation; neutralization; the obligations of a neutral state; the duties of prevention, abstention and impartiality; the rights of a neutral state; inviolability of territory, right of asylum, right of commerce; nationals of neutral state subject to state law and to rights of belligerent states; visit and search; contraband of war; blockade; unneutral service. 7. For reference: (1) general treatises: HALL, WESTLAKE, LAWRENCE, OPPENHEIM; (2) cases and documents:

MOORE, COBBETT, SCOTT, WHITTUCK, LAWRENCE, EVANS; (3) prize court decisions, official documents relating to the late war and Covenant of the League of Nations.

8. Commercial Law: General principles of the law of contracts. Rules relating to parties to contract; agency, partnership and companies. General view of the following: sale of goods, negotiable instruments, powers of banks, relation of banker and customer, insurance, carriage of goods, suretyship and guarantee, bills of sale and chattel mortgages, bankruptcy and insolvency. Text-book: STEPHEN, *Elements of Mercantile Law* (5 ed. 1911 by H. Jacobs). A larger book of a general character is SMITH, *Mercantile Law*. The lecturer will if desired refer students to special works on any of the foregoing topics.

9. Commercial Law: A second course, an extension of Course 8.

PHILOSOPHY

UNIVERSITY OF TORONTO:

- J. G. HUME, A.M., PH.D.....*Professor of History of Philosophy.*
G. S. BRETT, M.A.....*Professor of Philosophy.*
T. R. ROBINSON, PH.D.....*Assistant Professor of Philosophy.*
W. BELL, M.A.....*Lecturer.*

UNIVERSITY COLLEGE:

- F. TRACY, B.A., PH.D.....*Professor of Ethics.*

VICTORIA COLLEGE:

- W. B. LANE, M.A., PH.D.....*Professor of Ethics.*
W. T. BROWN, M.A., PH.D.....*Associate Professor of Ethics.*

TRINITY COLLEGE:

- REV. S. CHILDS, B.A.....*Lecturer in Ethics.*

ST. MICHAEL'S COLLEGE:

- REV. D. CUSHING, LL.D.....*Professor Emeritus of Cosmology.*
REV. H. CARR, B.A.....*Professor of History of Philosophy.*
SIR BERTRAM C. A. WINDLE, M.A., M.D., Sc.D., LL.D., F.R.S.,
Professor of Anthropology.
REV. E. J. MCCORKELL, M.A.....*Professor of Social Ethics.*
REV. H. S. BELLISLE, M.A.....*Professor of Logic.*
REV. M. J. OLIVER, B.A., PH M.....*Professor of Psychology.*
REV. W. J. ROACH, B.A.....*Professor of Ethics.*

PASS COURSES

2a. An Introductory Course in Philosophy. Three hours a week. The course will deal with the general problems of Philosophy.

3a. Social Ethics. Three hours a week. (1) Theory of morals. The subject matter and methods of ethics; study of the chief factors in the

ethical problem; critical examination of typical solutions. (2) History of moral ideas and customs in early society, with especial reference to Greek ethics, including (a) the moral and political ideals of Plato and Aristotle; (b) the later Greek systems (Stoic and Epicurean) and their influence on world civilization; (c) comparison of Greek and early Christian ideals and influences. (3) The study of modern social conditions and problems in their ethical aspects. Prescribed texts: SETH, *Ethical Principles*; Selections from PLATO, *Republic*; ARISTOTLE, *Nicomachean Ethics* and *Politics*; and from Stoic and Epicurean writers, as contained in BAKEWELL, *Source Book in Ancient Philosophy*. References: DEWEY AND TUFTS, *Ethics*; DRAKE, *Problems of Conduct*; SIDGWICK, *History of Ethics*, ROGERS, *Short History of Ethics*; ELWOOD, *Sociology and Modern Social Problems*; TOWNE, *Social Problems*.

3b. History of Philosophy. History of the Problems of Ancient and Mediaeval Philosophy. Three hours a week. Texts: PLATO *Republic*; ARISTOTLE *Ethics*; works of reference as prescribed in the course of instruction.

4a. Modern Ethics. Three hours a week. The lectures will be (a) Historical, tracing the rise and development of the leading problems of ethics, and the formation of the chief schools and systems, Hedonist, Intuitionist, etc.; (b) Expository and critical. The following texts will be studied in the class, and their doctrines examined: HOBBS, *Leviathan*; HUME, *Enquiry concerning the Principles of Morals*, with Appendices; J. S. MILL, *Utilitarianism*; SPENCER, *Data of Ethics*; J. G. HUME, *Young's Ethics of Freedom*; GREEN, *Prolegomena to Ethics*.

4b. History of Philosophy. History of the problems of Modern Philosophy with special reference to British Philosophy. Three hours a week. References: SETH, *English Philosophers and Philosophical Schools*; CALKINS, *The Persistent Problems of Philosophy*; CUSHMAN, *History of Philosophy*, Vol. II.; RAND, *Classical Philosophers*; A. D. LINDSAY, *Kant*; M. M. WADDINGTON, *The Development of British Thought*.

HONOUR COURSES

1a. Introductory Course in Philosophy—Ethics. Two hours a week. Prescribed text: JOHNSTON, *An Introduction to Ethics*.

2b. Ethics. Elementary Course. Two hours a week. Outline study of the subject matter and method of Ethics, with its leading problems and schools. Ethical development among the Hebrews, Greeks and Romans.

Prescribed texts: MACKENZIE, *Manual of Ethics*; Selections from the Old Testament; PLATO, *Republic*; ARISTOTLE, *Nicomachean Ethics*; CICERO, *De Finibus*, and from other Greek and Roman writers, as given in BAKEWELL, *Source Book in Ancient Philosophy*.

References: ROGERS, *Short History of Ethics*; MUIRHEAD, *Elements of Ethics*; SETH, *Ethical Principles*; DEWEY AND TUFTS, *Ethics*; WATSON, *Hedonistic Theories*; MITCHELL, *Ethics of the Old Testament*.

2c. Logic. One hour a week. Introductory Course. Development of Logic among the Greeks. Texts: PLATO, *Theaetetus*, *Republic*; ARISTOTLE, *Organon* (Selections); CREIGHTON, *Introductory Logic*.

2d. History of Philosophy. Two hours a week. Texts: LOCKE, *Essay on the Human Understanding*. BERKELEY, *Principles of Knowledge*.

3c. Ethics. Two hours a week. Modern Ethics from Hobbes to Spencer, with special attention to the Ethics of Naturalism. Exposition and criticism of Hedonism, Utilitarianism, and Evolutionism.

Prescribed texts: HOBBS, *Leviathan*; HUME, *Enquiry concerning the Principles of Morals*, MILL, *Utilitarianism*, SPENCER, *Data of Ethics*; together with other selections, from RAND, *Classical Moralists*, or SELBY-BIGGE, *British moralists*.

References. ALBEE, *History of English Utilitarianism*; WATSON, *Hedonistic Theories*; SORLEY, *The Ethics of Naturalism*, MARTINEAU, *Types of Ethical Theory*; RASHDALL, *Theory of Good and Evil*.

3d. History of Philosophy. Modern Philosophy. Two hours a week.
(a) The rationalistic school, selections from Des-Cartes, Spinoza, Leibnitz.
(b) The empirical school; selections from Hume, Mill, Spencer, James.

3e. Logic. Fifty hours. (a) Development of Logic from Aristotle to Bacon. (b) Empirical Logic and Scientific Methods. Texts. BACON, *Novum Organum and Advancement of Learning*; J. S. MILL, *A System of Logic*; HOBHOUSE, *Theory of Knowledge*.

4c. Ethics. Two hours a week. Rationalism and Idealism. Exposition and Criticism of the Ethics of Kant and T. H. Green. Discussion of selected problems in Ethics.

Prescribed texts: KANT, *Groundwork of the Metaphysics of Ethics*, and *Critique of Practical Reason*; GREEN, *Prolegomena to Ethics*.

References: CAIRD, *The Critical Philosophy of Kant*; WATSON, *The Philosophy of Kant Explained*.

4d. Social Ethics. Two hours a week. (1) The evolution of society; philosophy of social progress, its nature and the forces directing it. (2) Theories of the mutual relation of the state and the individual; grounds of political obligation. (3) Modern social conditions and problems. References: GREEN, *Principles of Political Obligation*; TODD, *Theories of Social Progress*; PARK AND BURGESS, *Introduction to the Science of Sociology*; ELWOOD, *Sociology and Modern Social Problems*; OGG, *Social Progress in Contemporary Europe*.

4e. History of Philosophy. Kant and his successors. Two hours a week. Text: KANT, *Critique of Pure Reason*.

4f. Logic. Two hours a week. Recent developments in logical theory; review of current movements with special reference to methods and principles.

ST. MICHAEL'S COLLEGE

PASS COURSES

2e. Introduction to Philosophy. Three hours a week during the Michaelmas term. Prescribed texts: M. DE WULF, *History of Mediæval Philosophy*; PLATO, *Republic*, ARISTOTLE, *Politics*; CICERO, *De Finibus*; Encyclopedia articles.

2f. An outline of Greek philosophic thought. Three hours a week during the Easter term.

3f. General Philosophy. Modern physical and chemical views in relation to the conception of matter and form; the uniformity of the Universe and the orderliness of Nature; proofs of the existence of God, the argument from design. Two hours a week.

3g. Logic. The standpoint and problem of Logic, important stages in the development of Logic; the syllogism; the problem of induction; assumptions of induction; the laws of thought; types of judgment; nature of inference; science and philosophy; philosophy as the interpretation of the sciences. Prescribed texts: BOSANQUET, *Essentials of Logic*; JOYCE, *Principles of Logic*; COFFEY, *Science of Logic*; BUTCHER, *Aspects of Greek Genius, Essay on the Unity of Learning*.

3h. Psychology. An introductory course. A study of common human experiences presenting the main problems of Psychology; various fields of consciousness and methods of study: normal, human, adult psychology. Prescribed texts: MAHER, *Psychology*, Part I.; Manuals by BREESE, DUBRAY and MERCIER.

3i. General Ethics. An analysis of the idea of the Good with a criticism of the various theories; the problem of Duty; the Virtues. Two hours a week. Prescribed texts: CRONIN, *Science of Ethics*, Vol. I.; MACDONALD, *Principles of Morality*; RICKABY, *Moral Philosophy*.

4g. General Philosophy. The cell and cellular life; Bio- and Abiogenesis; development, vegetable and animal kingdoms; vitalism, Geology and early man; races of mankind; transformism; the origin of man. Two hours a week.

4h. Metaphysics. The nature and need of Metaphysics; the notion of Being; essence and existence; unity, truth, and goodness of Being; the possibilities of Being; the finite and infinite in Being; substance and accident; personality; causality; relation, space, and time. Two hours a week.

4i. Psychology. A study of the nature of the human mind; the mind-body relation; psychical research. Two hours a week. Text: MAHER, *Psychology*, Part II.; BARRET, *Psychical Research*; McDUGALL, *Mind and Body*.

4j. Social Ethics. The origin of rights; natural law; rights of the individual, of the family, of the state, the origin and role of authority; the problem of state-interference. Prescribed texts: CRONIN, *Science of Ethics*, Vol. II.; MERCIER, *Manual of Modern Scholastic Philosophy*; RICKABY, *Aquinas Ethicus*.

HONOUR COURSES

1b. A course of lectures on the elements of moral science. Two hours a week.

2g. Introduction to Philosophy. Three hours a week during the Michaelmas term. Prescribed texts: M. DE WULF, *History of Mediaeval Philosophy*; PLATO, *Republic*; ARISTOTLE, *Politics*; CICERO, *De Finibus*; Encyclopedia articles.

2h. An outline of Greek philosophic thought. Three hours a week during the Easter term.

2i. Logic. The standpoint and problem of Logic; important stages in the development of Logic; the syllogism; the problem of induction; assumptions of induction; the laws of thought; types of judgment; nature of inference; science and philosophy; philosophy as the interpretation of the sciences. Prescribed texts: BOSANQUET, *Essentials of Logic*; JOYCE, *Principles of Logic*; COFFEY, *Science of Logic*; BUTCHER, *Aspects of Greek Genius, Essay on the unity of Learning*.

2j Seminar in Logic. Special problems arising from the reading of NEWMAN's *Grammar of Assent*. One hour.

2k. Psychology. An introductory course. A study of common human experiences presenting the main problems of Psychology; various fields of consciousness and methods of study; normal, human, adult psychology. Two hours a week. Prescribed texts: MAHER, *Psychology*, Part I.; Manuals by BREESE, DUBRAY and MERCIER.

2l. Social Psychology. Behaviour and action; theories of action. One hour a week. Reference: W. McDOUGALL, *Social Psychology*.

2m. General Ethics. An analysis of the idea of the Good, with a criticism of the various theories; the problem of Duty; the Virtues. Two hours a week. Prescribed texts: CRONIN, *Science of Ethics*, Vol. I.; McDONALD, *Principles of Morality*; RICKABY, *Aquinas Ethicus*.

3j. General Philosophy. Modern chemical and physical views in relation to the conception of Matter and Form, the uniformity of the Universe and the orderliness of Nature; proofs of the existence of God; the argument from design. Two hours a week.

3k. Logic. The problems of Epistemology, scepticism, positivism, dogmatism; exposition and criticism of each; knowledge and the external world; critical study of DESCARTES, LOCKE and HUME from this viewpoint; the criteria of valid knowledge. One hour.

3l. Seminar in Logic. Discussion of the problems arising from the reading of BERKELEY, *Principles of Knowledge; Essay on the Human Understanding*. One hour.

3m. Metaphysics. The nature and need of Metaphysics; the notion of Being, essence and existence, unity, truth, and goodness of Being, the possibilities of Being; the finite and infinite in Being; substance and accident; personality; causality, relation, space and time. Two hours a week.

3n. Social Ethics. The origin of rights, natural law; rights of the individual, of the family, of the state; the origin and role of authority; the problem of state interference. Two hours. Prescribed texts: CRONIN, *Science of Ethics*, Vol. II; MERCIER, *Manual of Modern Scholastic Philosophy*; RICKABY, *Aquinas Ethicus*.

3o. Seminar in Social Ethics. Selected readings from PLATO, ARISTOTLE and ST. THOMAS.

3p. History of Mediaeval Philosophy. Two hours a week.

4l. General Philosophy. The cell and cellular life; Bio- and Abiogenesis; development; vegetable and animal kingdoms; vitalism, Geology and early man; races of mankind, transfromism, the origin of man. Two hours a week.

4m. Epistemology. An investigation of the grounds of Certitude with special reference to HUME, KANT and J. S. MILL. One hour a week during the Michaelmas term.

4n. Contemporary Thought. Bergson, Cioce, and British and American realists. One hour a week during the Easter term.

4o. Psychology. A study of the nature of the human mind; the mind-body relation; psychical research. Two hours a week. Prescribed texts: MAHER, *Psychology*, Part II; Readings: BARRETT, *Psychical Research*; MCDUGALL, *Mind and Body*.

4p. Seminar in Psychology. The History of Psychology. References: MERCIER, *The Origin of Modern Psychology*; BRETT, *History of Psychology*.

4q. Social Ethics. A course of lectures on the problem of distributive justice; the moral aspect of private property in land, profits, interest, wages. Three hours a week. Prescribed text: RYAN, *Distributive Justice*. Readings: RYAN, *Living Wage*; HILLQUIT-RYAN, *Socialism-Promise or Menace?*; SKELTON, *A Critical Analysis of Socialism*; LEO XIII., *Rerum Novarum*.

4r. History of Modern Philosophy. Two hours a week.

4s. A dissertation on some selected topic in Philosophy to be chosen by the student and approved by the department on or before November 1.

PSYCHOLOGY DEPARTMENT

1. Abnormal Psychology. Problem of the feeble-minded, school life, adult life; intelligence tests as applied to children and their results; feeble-

mind and their relation to society, relation of Psychiatry to Psychology; drugs and their effect, heredity as a factor in insanity; general outline of diseases of the mind, treatment of mental diseases in general, results; duty of the state as a factor; cause of the increase of mental diseases.

PSYCHOLOGY

UNIVERSITY OF TORONTO:

E. A. BOTT, B.A.	Assistant Professor.
J. W. BRIDGES, A.M., PH.D.	Assistant Professor.
MISS K. M. BANHAM, B.Sc.	Lecturer.
J. K. LATCHFORD, M.B.	Laboratory Assistant.
MISS M. I. FLETCHER.	Class Assistant.
MISS J. MASTEN	Class Assistant.
MISS D. D. HEARN.	Research Assistant.

ST MICHAEL'S COLLEGE:

REV. M. J. OLIVER, B.A., PH.M.	Professor.
V. A. McDONOUGH, M.B.	Lecturer.

PASS COURSES

2a. Elementary Psychology—A course in fundamentals; lectures and demonstrations. Three hours a week.

2b. A survey of the field of psychology for students of the Extension Department. Special reference to problems of applied psychology. Two hours a week.

3a. Principles and application of experimental psychology; lectures and laboratory (3f). Three hours a week.

4a. Abnormal Psychology; abnormal mental phenomena and their relation to the normal; the psychology of mental disease and the psychopathology of everyday life; lectures and demonstrations. Three hours a week.

HONOUR COURSES

2c. Introduction to psychology. Three hours a week.

3b. Methods of psychological analysis, historical and critical. Three hours a week.

3c. Analysis and measurement of processes; lectures with laboratory (3g). Three hours a week.

4b. Abnormal Psychology; abnormal mental phenomena and their relation to the normal; the psychology of mental disease and the psychopathology of everyday life; lectures, special readings and reports. Three hours a week.

4c. The psychology of intelligence, character and temperament; theories; method of evaluation; lectures with laboratory (4d). Three hours a week.

COURSES IN THE FACULTY OF MEDICINE

- 2d. Introductory Course (Psychiatric Option). Two hours a week.
 3d. Practical laboratory course (Psychiatric Option). Two hours a week.
 3e. Special psychology (Six year course). Fifteen hours.

COURSES IN THE DEPARTMENT OF SOCIAL SERVICE

- 1a. General Psychology. One hour a week.
 2e. Social and applied psychology. One hour a week.

LABORATORY COURSES IN ARTS

- 2f. Elementary experiments on sensation. Two hours a week.
 3f. General experimental course. Two hours a week.
 3g. Higher processes and psychological measurements. Two hours a week.
 4d. Clinical psychology. Two hours a week.
 4e. Selected laboratory problems for advanced students. Two hours a week.

MATHEMATICS

ALFRED BAKER, M.A., LL.D.....	<i>Professor Emeritus.</i>
A. T. DELURY, M.A.....	<i>Professor.</i>
M. A. MACKENZIE, M.A.....	<i>Professor.</i>
J. C. FIELDS, B.A., PH.D., F.R.S.....	<i>Professor.</i>
S. BEATTY, PH.D.....	<i>Associate Professor.</i>
I. R. POUNDER, M.A.....	<i>Assistant Professor.</i>
J. L. SYNGE, B.A.....	<i>Assistant Professor.</i>
MISS M. E. G. WADDELL, M.A.....	<i>Tutor.</i>
MISS L. M. PHILLIPS, B.A.....	<i>Fellow.</i>
J. H. SIMESTER, B.A.....	<i>Fellow.</i>
MISS I. V. JACKSON, B.A.	<i>Fellow.</i>

PASS COURSES

1a. Algebra: Simple equations of one, two and three unknown quantities; quadratic equations of one and two unknown quantities; elementary treatment of variation, proportion and progressions; interest forms and annuities. Text-book: DELURY, *Intermediate Algebra*. Twenty-five hours.

1b. Analytical Geometry: A course in elementary analytical geometry of two dimensions, establishing the more important properties of the conic sections. Text-book: BAKER, *Analytical Geometry for Beginners*. Twenty-five hours.

1c. Plane Trigonometry: Trigonometrical ratios with their relations to one another: sines, etc., of the sum and difference of angles, with deduced formulas; solution of triangles, expressions for the area of triangles; radii

of circumscribed, inscribed and escribed circles. Text-book: HALL AND KNIGHT, *Elementary Trigonometry*. Twenty-five hours.

2a. Algebra: A course in limits and infinite series, serving as an introduction to the calculus. Thirty-seven hours.

2b. Analytical Geometry: A review and extension of the earlier course in two dimensions, with special attention to the graphs of functions, and an elementary course in three dimensions treating of the plane, the line, the sphere and the conicoids. Thirty-seven hours.

3a. Differential and Integral Calculus: The elementary theory and applications. Seventy-five hours.

3b. History of Mathematics. The earlier period. Twelve hours.

4a. Calculus and Differential Equations: A continuation of the course in the Third Year, with an elementary course in differential equations. Twenty-five hours.

4b. Geometry: A course in the modern methods of treating pure geometry. Fifty hours.

4c. History of Mathematics. The later period. Twelve hours.

HONOUR COURSES

1d. Algebra: Limits, infinite series with a special study of the binomial, exponential and logarithmic series, continued fractions, elementary number-theorems and determinants. Text-books: HALL AND KNIGHT, *Higher Algebra*; C. SMITH, *Treatise on Algebra*; CHRYSAL, *Algebra*. Fifty hours.

1e. Introduction to Analysis. Fifty hours.

1f. Analytical Geometry: An advanced course. Text-book: C. SMITH, *Conic Sections*. Fifty hours.

1g. Spherical Trigonometry: Text-book: TODHUNTER AND LEATHAM, *Spherical Trigonometry*. Ten hours.

1h. Analytical Trigonometry: De Moivre's Theorem and a study of the more important trigonometrical infinite series and infinite products. Text-books: TODHUNTER AND HOGG, *Plane Trigonometry*; HOBSON, *Trigonometry*. Fifteen hours.

1i. Elementary Analysis: Limits; binomial, exponential and logarithmic series; applications to problems in economics. Fifty hours.

2c. Differential and Integral Calculus: The elementary theory and applications. Text-book: OSGOOD, *Differential and Integral Calculus*. Fifty hours.

2d. Differential Calculus: An advanced course. Text-books: WILLIAMSON, *Differential Calculus*; SERRET, *Differential-und Integral-Rechnung*, DE LA VALLEE POUSSIN, *Cours d'Analyse Infinitésimale*. Fifty hours.

2e. Integral Calculus: An advanced course. Text-books: WILLIAMSON,

Integral Calculus; SERRET, *Differential-und Integral-Rechnung*; DE LA VALLEE POUSSIN, *Cours d'Analyse Infinitésimale*. Fifty hours.

2f. Solid Geometry: An advanced course. Text-books: C. SMITH, *Solid Geometry*; SNYDER AND SISAM, *Analytic Geometry of Space*. Fifty hours.

2g. Newton's Principia: Section I. Text-books: MAIN'S EVANS' *Principia*; FROST'S *Principia*. Fifteen hours.

2h. Elementary Calculus With special reference to problems in Economics. Fifty hours.

3c. Differential Equations: An elementary course. Text-books. COHEN, *Differential Equations*, CAMPBELL, *Differential Equations*. Ten hours.

3d. Theory of Equations: An elementary course including applications to number-theory and geometry. Text-books: DICKSON, *Elementary Theory of Equations*; BURNSIDE AND PANTON, *Theory of Equations*. Fifteen hours.

4d. Differential Equations: The advanced course. Text-books: JOHNSON, *Differential Equations*; FORSYTH, *Differential Equations*. Fifty hours.

4e. Higher Plane Curves: With introductory course in Modern Geometry. Text-books: SALMON, *Higher Plane Curves*; CLEBSCH, *Vorlesungen über Geometrie*. Fifty hours.

4f. Quaternions with outlines of other Space Analyses: Text-books: KELLAND AND TAIT, *Quaternions*; JOLY, *Manual of Quaternions*; TAIT, *Quaternions*. Fifty hours.

4g. Invariant Theory. Text-books: SALMON, *Higher Algebra*; ELLIOTT, *Algebra of Quantics*; GORDAN, *Invariantentheorie*; GRACE AND YOUNG, *Algebra of Invariants*. Fifty hours.

4h. Theory of Numbers: Text-books: MATHEWS, *Theory of Numbers*; DIRICHLET, *Zahlentheorie* (fourth edition). Fifty hours.

4i. Theory of Substitutions: Text-books: NETTO, *Theory of Substitutions*; WEBER, *Lehrbuch der Algebra*. Fifty hours.

4j. Elementary Theory of Functions: Text-books: HARKNESS AND MORLEY, *Introduction to Analytic Functions*; FORSYTH, *Theory of Functions*. Fifty hours.

4k. Elliptic Functions: Text-books: APPELL AND LACOUR, *Fonctions Elliptiques*. Fifty hours.

4l. Tangential Co-ordinates or Trilinear Co-ordinates: Text-books, PAPELIER, *Coordonnées Tangentielles*; FERRERS, *Trilinear Co-ordinates*. Fifty hours.

4m. Modern Synthetic Geometry: Text-books: REYE, *Geometry of Position* (translated by Holgate); CREMONA, *Projective Geometry*; LACHLAN, *Modern Pure Geometry*; DURELL, *Plane Geometry for Advanced Students*, VEBLEN AND YOUNG, *Projective Geometry*. Fifty hours.

4n. Advanced Calculus: Implicit functions, definite integrals, multiple integration, etc. Text-book: GOURSAT-HEDRICK, Vol. I. Fifty hours.

4*p*. Theory of Probability: Text-book: Article on "*Probability*" in the eleventh edition of the Encyclopædia Britannica. Twenty-five hours

Course 4*p* is an alternative course for Course 9, Actuarial Science, offered for those students of the Fourth Year who have not taken Actuarial Science in the earlier years.

COURSES IN THE FACULTIES OF ARTS AND MEDICINE

1*j*. Elementary Analysis: A course in limits and infinite series, with a special study of the Binomial, Exponential and Logarithmic Series. Twenty-five hours.

1*k*. Elementary Analytical geometry. Twenty-five hours.

2*i*. Differential and Integral Calculus: An elementary course with special attention to applications. Fifty hours.

3*e*. Finite Differences: Methods and use of formulae. Elementary Mathematical statistics. Fifty hours.

COURSES IN THE FACULTY OF APPLIED SCIENCE

1*l*. Algebra and Elementary Calculus: Limits, binomial, exponential and logarithmic series, and the elementary theory of the differential and integral calculus, with simple applications. Fifty hours.

1*m*. Analytical Geometry: An elementary course emphasizing the general method in this subject. Thirty-seven hours.

2*j*. Differential and Integral Calculus: An elementary course with applications. Twenty-five hours.

MECHANICS

W. J. LOUDON, B.A. *Professor*.
N. E. SHEPPARD, M.A. *Lecturer*.

1. Elementary Mechanics: A course of fifteen lectures, twice a week during Michaelmas term.

2. Elementary Statics and Dynamics: A course of twenty lectures, twice a week during the Easter term.

3. Advanced Statics: A course of thirty-five lectures, three times a week during Easter term.

4. Particle Dynamics: A course of twelve lectures, twice a week during Michaelmas term.

5. Rigid Dynamics: A course of twenty-five lectures, twice a week.

6. Celestial Mechanics: A course of twenty-five lectures, twice a week.

7. Method of Least Squares: Once a week during the Easter term.

8. Dynamics of Rotation: A course of twenty-five lectures, once a week.

9. Principles of Mechanics: For students taking the Second Year of the course in Commerce and Finance. Fifteen lectures.

10. Elementary Mechanics: A course of lectures for Third Year Pass Course.

ACTUARIAL SCIENCE

M. A. MACKENZIE, M.A. *Professor.*

W. S. FERGUSON *Lecturer in Accounting.*

1. Arithmetic: Decimals, interest and discount, annuities certain, bond values, etc. Twenty-five hours.

2. Elementary Mathematics of Statistics. Twenty-five hours.

3. Accounting: An introductory course in general principles. Twenty-five hours.

4. Accounting, advanced: A critical examination of the Theory and Practice of Accounting and the preparation of financial statements. Fifty hours.

5. The Elements of the Theory of Life Annuities and Life Assurances. Twenty-five hours.

6. Finite Differences: Elementary methods and formulæ. Twenty-five hours.

7. The Theory of Interest: An advanced course. Twelve hours.

8. The Theory of Life Contingencies: An advanced course, Part I. Fifty hours.

9. The Theory of Life Contingencies: An advanced course, Part II. Fifty hours.

ASTRONOMY

C. A. CHANT, M.A., PH D. *Professor of Astrophysics.*

J. A. PEARCE, B.A. *Demonstrator.*

F. L. BLAKE *Assistant.*

H. W. DEWEY *Assistant.*

H. J. STOWE. *Assistant.*

PASS COURSE

1. Descriptive Astronomy: A course of fifty lectures, intended specially for students in the Pass Course. Twice a week. Text-book: YOUNG, *Elements of Astronomy.*

PASS AND HONOUR COURSES

2. Elementary Practical Astronomy: Intended to accompany 1. Consisting of observation (including photography) of the heavenly bodies; together with exercises in simple astronomical measurements and in the

use of almanacs, globes, star-maps, photographs, etc. Two hours a week, in afternoon or evening as arranged. Text-book: WHITING, *Exercises in Astronomy*.

3. Elementary Astronomy: A course intended specially for students in the Science courses. Fifty lectures, twice a week. Text-book: YOUNG, *Manual of Astronomy*

HONOUR COURSES

4. Astronomy: A more advanced course. Text-books: ANDOYER, *Cours d'Astronomie*, tome 1; *The Nautical Almanac*. For reference: GODFRAY, *Astronomy*, CHAUVENET, *Spherical Astronomy*. Forty hours, twice a week.

5. Practical Astronomy: Observations with the equatorial telescope, the transit instrument and the sextant. Two evenings a week. By courtesy of the director of the Meteorological Observatory the astronomical instruments there are used by the students of the University. Text-book: CAMPBELL, *Practical Astronomy*

6. Computation Course: A course for the discussion of astronomical observations and for computation, associated with Course 5. Two hours a week.

7. Introduction to Astrophysics: A course of fifty lectures, twice a week. Text-books: SCHEINER, *Astronomical Spectroscopy*, BALY, *Spectroscopy*; SALET, *Spectroscopie Astronomique*.

8. Practical Astrophysics: A laboratory course to accompany Course 7. One afternoon a week in the Michaelmas and two in the Easter term.

9. Celestial Mechanics (see under Mechanics, p. 112).

10. Method of Least Squares (see under Mechanics, p. 112).

PHYSICS

J. C. McLENNAN, O B E., PH D., D.Sc., LL.D, F.R.S.,

Professor and Director of the Physical Laboratory.

E. F. BURTON, B.A. PH.D. Associate Professor.

JOHN SATTERLY, M.A., D.Sc. Associate Professor.

TACHLAN GILCHRIST, M A., PH.D Assistant Professor.

H. A. McTAGGART, M.A. Assistant Professor.

D. S. AINSLIE, M.A. Demonstrator.

H. C. BATES, B.A. Demonstrator.

MISS K. M. CROSSLEY, B.A. Demonstrator.

J. E. CURRIE, B A. Demonstrator (part time).

MISS H. C. MILLAR, M.A. Demonstrator.

MISS F. M. QUINLAN, M A. Demonstrator.

MISS H. I. EADIE, B.A. Assistant Demonstrator.

MISS E. M. PEAREN, B.A. Assistant Demonstrator.

MISS A. T. REED, B.A. Class Assistant.

The work of instruction in Physics consists of a series of courses of lectures and of practical work in the laboratories, which are embodied in the following schedule:

1. A course of seventy-five lectures on Properties of Matter, Mechanics, Hydrostatics and Heat. These lectures are illustrated by experiments. Text-books: EGGAR, *Mechanics*; WAGSTAFF, *Properties of Matter*; STEWART AND SATTERLY, *Text-book of Heat*.

2. Properties of Matter, Mechanics, Hydrostatics and Heat: A laboratory course of seventy-five hours, one afternoon a week, throughout the year, designed to illustrate the lectures in Course 1 in Physics, and Course 1 in Mechanics. Text-books As for Course 1, also ALLEN AND MOORE, *Text-book of Practical Physics*, Parts I and IV; CLARK, *Mathematical and Physical Tables*.

3. Elementary Magnetism and Electricity: A course of thirty-five lectures, given in two divisions 3a and 3b. Text-books: HADLEY, *Magnetism and Electricity for Students*, SYLVANUS THOMPSON, *Electricity and Magnetism*; BROOKS AND POYSER, *Electricity and Magnetism*; WATSON, *A Text-book of Physics*; STEWART, *Electricity and Magnetism*; HUTCHINSON, *Advanced Magnetism and Electricity*

4. Elementary Light: A course of twenty-five lectures, one a week beginning in the Michaelmas term. Text-books. STEWART AND SATTERLY, *Text-book of Light*; EDSER, *Light for Students*; WATSON, *A Text-book of Physics*.

5. Elementary Acoustics: A course of fifteen lectures, one a week Text-books: CATCHPOOL, *Text-book of Sound*; POYNTING AND THOMSON, *Sound*; WATSON, *A Text-book of Physics*; D. C. MILLER, *The Science of Musical Sounds*.

The lectures in Courses 1, 3a, 3b 4 and 5 are illustrated by experiments.

6. Magnetism, Electricity, Light and Acoustics: A laboratory course of one hundred and fifty hours, two afternoons a week throughout the year, designed to illustrate the lectures in Courses 3a, 3b, 4 and 5. Text-books: ALLEN AND MOORE, *Text-book of Practical Physics*, CARHART AND PATTERSON, *Electrical Measurements*, C. M. SMITH, *Electric and Magnetic Measurements*; EDSER, *Light for Students*; CLAY, *Treatise on Practical Light*, CATCHPOOL, *Sound*.

7. A course of lectures one hour a week on Elementary Light and Sound. Textbooks as for courses 4 and 5.

8. A series of lectures, being a portion of the first year Pass Course, on the principles and application of Science. Textbook: BURTON, *Lectures in General Physics*.

9. A course of lectures and laboratory work, four hours a week, for second year pass students. This course includes Properties of Matter, Mechanics, Hydrostatics, and Heat. The lectures will deal with simple measurements, energy, gravitation and the pendulum, the general proper-

ties of solids, liquids and gases such as elasticity, viscosity and capillarity, the determination of fluid pressures, specific gravity and the theory and use of common forms of pumps, barometers, etc., the thermal characteristics of various substances, including expansion, various thermometers, specific and latent heat and calorimetry, the phenomena observable during the change of state of substances from one form to the other; conduction, radiation, heat and energy, the first and second laws of thermodynamics, engines; the liquefaction of gases and liquid air, the kinetic theory of matter. Textbooks as for courses 1 and 2

10. A course of lectures and laboratory work, four hours a week, for third year pass students. This course includes work in light and acoustics, and consists of a general explanation of wave motion, the reflection, refraction and diffraction and interference phenomena connected with wave motion, the production, propagation, and detection of sound waves; tuning forks, organ pipes and vibrating strings, various musical scales; analysis of complex sounds, the ear and voice; a study of mirrors, prisms and lenses; the eye, microscope, telescope and other optical instruments; dispersion, colour and spectroscopy, interference and diffraction; double refraction and polarisation; theories of light. Text-books as for Courses 4 and 5.

11. A course of lectures and laboratory work, four hours a week, for fourth year pass students. This course will consist of lectures and laboratory work in electricity and magnetism, including recent developments, such as radioactivity and radiology; laws of magnetism, static electricity, condensers, electrical conduction in solids, liquids and gases, voltaic cell, chemical, magnetic and heating effect of the electrical current, potential; Ohm's law and its application, laws of electrical resistance, electromotive forces, induced currents, the induction-coil, alternating and high frequency currents, electrical waves, X-rays and radioactivity. Text-books as for Course 3.

12. Applications of the theory of Potential to Physics: A course of forty lectures. Text-book: STARLING, *Electricity and Magnetism*.

13. Properties of Matter: A course of lectures, two a week beginning in the Michaelmas term. Text-books: POYNTING AND THOMSON, *Properties of Matter*; TAIT, *Properties of Matter*; EDSE, *General Physics*.

14. Geometrical Optics: A course of thirty lectures. Text-book: HOUSTON, *A Treatise on Light*, HEATH, *Geometrical Optics*; SOUTHALL, *Mirrors, Prisms, and Lenses*.

15. Advanced Heat and Elementary Thermodynamics: A course of thirty lectures. Text-books: EDSE, *Heat for Advanced Students*; HART, *A Student's Heat*, PRESTON, *Heat*; E. H. GRIFFITHS, *Thermal Measurement of Energy*; E. GRIFFITHS, *Methods of Measuring Temperature*; PRESTON, *Heat*.

16. Thermodynamics: A course of twelve lectures on thermometry and pyrometry, gas and vapour equations and the fundamental principles of thermodynamics. Text-books as for Course 15.

17. A laboratory course on the accurate determination of physical constants, together with practice in laboratory arts. This course involves about one hundred and fifty hours' laboratory work. Text-books: ALLEN AND MOORE, *Text-book of Practical Physics*; WATSON, *A Text-book of Practical Physics*, SEARLE, *Simple Harmonic Motion*, SEARLE, *Experimental Elasticity*, TUTTLE, *Theory of Measurements*.

18. Calculations for Science Students. A course of practical instruction in mathematical drawing, graphs and their applications, calculations and their accuracy, elementary calculus and statistics. Text-books: TUTTLE, *Theory of Measurements*; S. P. THOMPSON, *Calculus Made Easy*; GILL, *School of Art Geometry*; D'ARCY THOMPSON, *Growth and Form*.

19. A short course of lectures and laboratory work on Radiation, including atomic structure and radioactivity.

20. Theory of Optics. A course of lectures twice a week throughout the year. Text-books: DRUDE, *Theory of Optics*, MANN, *Manual of Advanced Optics*, BALY, *Spectroscopy*, WOOD, *Physical Optics*, SCHUSTER, *Theory of Optics*; HOUSTON, *A Treatise on Light*.

21. Elasticity: A course of lectures, two a week throughout the year dealing with the mathematical theory of elasticity with application to the theory of double refraction and polarisation of light. Text-books: POYNTING AND THOMSON, *Properties of Matter*, CHRISTIANSEN, *Elements of Theoretical Physics*; PELLAT, *Polarisation et Optique Cristalline*.

22. Fourier's Series: A course of fifteen lectures on Fourier's Series and its applications to Physics. Text-books: DONKIN, *Acoustics*; BYERLY, *Fourier's Series and Spherical Harmonics*; BARTON, *A Text-book on Sound*; CARSE AND SHEARER, *Fourier and Periodogram Analysis*; LAMB, *Dynamical Theory of Sound*; CARSLAW, *Fourier's Series and Integrals*.

23. Thermodynamics: A course of lectures one a week throughout the year. Text-books: POYNTING AND THOMSON, *Heat*; PARTINGTON, *Thermodynamics*; MAXWELL, *Heat*, LEWIS, *System of Physical Chemistry*, WHETNAM, *Solution and Electrolysis*; PRESTON, *Heat*.

24. Hydromechanics: A course of lectures during the Easter term. Text-books: MINCHIN, *Hydrostatics*; BESANT, *Hydro-mechanics*; LAMB, *Hydrodynamics*, BARTON, *Mechanics of Fluids*; RAMSEY, *Hydrodynamics*.

25. Colloidal Solutions: A course of lectures on the physical properties of colloidal solutions. Text-book: BURTON, *The Physical Properties of Colloidal Solutions*.

26. A course of lectures on Electricity and Magnetism including the Electromagnetic Theory of Light, Electron Theory of Matter, Dispersion, Absorption, Polarisation, Magneto-Optics, Electrical Oscillations, Conduction of Electricity in Gases, and Radioactivity. Text-books: J. J. THOMSON, *Elements of Electricity and Magnetism*, *Recent Researches in Electricity and Magnetism*, *Conduction of Electricity through Gases*; ABRAHAM AND LANGEVIN, *Ions, Electrons, Corpuscles*, DRUDE, *Theory of Optics*;

LORENTZ, *The Theory of Electrons*, N. R. CAMPBELL, *Modern Electrical Theory*; RUTHERFORD, *Radioactive Substances and their Radiations*, STARLING, *Electricity and Magnetism*; MILLIKAN, *The Electron*; *Radio Instruments and Measurements* (ed. by Bureau of Standards)

27. A laboratory course designed as an extension of Course 17, and as an introduction to research work. A seminar is held once a fortnight in connection with this course, under the supervision of the Director of the Laboratory, at which reports on papers in the current physical journals are presented and discussed

28. A course of lectures and laboratory work, specially designed for students taking a one-year course in Physics.

29. History of Physics CAJORI, *History of Physics*; WHITTAKER, *History of the Theories of Matter and Matter*.

30. High Frequency Alternating Currents: A course of twenty-five lectures

31. Vector Analysis: A course of twenty-five lectures: COFFIN, *Vector Analysis*.

Regulations.—*Deposit Fee*: Each student taking laboratory course 2, 6, 10, 11, 17, or 28 is required to make a deposit of three dollars (\$3.00) before beginning work. All supplies, apparatus broken or destroyed and all fines will be charged against this deposit, which must be renewed when exhausted. At the close of the session cash balances will be returned on a day appointed for the purpose.

Additional Text-books.

General Physics: WHITE, WATSON, GANOT, KIMBALL, HASTINGS AND BEACH, DESCHANEL (ed. Everett), JAMIN, VIOLLE, NICHOLS AND FRANKLIN, BARLOW, THOMSON AND TAIT, LEEFELDT, MILLIKAN AND GALE, MANN AND TWISS, DANIELL, H. A. WILSON, HOUSTON (*An Introduction to Mathematical Physics*), DUNCAN AND STARLING.

Elementary Mechanics: ASHFORD, LOCK, GLAZEBROOK, BRIGGS AND BRYAN, MAGNUS, LONEY, GARNET; SATTERLY (*Measurements and Mechanics*).

Elementary Hydrostatics: GLAZEBROOK, BRIGGS AND BRYAN, LONEY.

Elementary Mechanics and Heat: GREGORY AND HADLEY.

Elementary Heat: GLAZEBROOK, STEWART, TYNDALL, BALFOUR STEWART, TAIT, DRAPER, DARLING, SCARLETT, STEWART AND SATTERLY. (*Heat for Engineers*)

Elementary Light: STEWART AND SATTERLY, JONES, TYNDALL, TAIT, WRIGHT, GLAZEBROOK, EMTAGE.

Elementary Electricity and Magnetism: POYSER, GLAZEBROOK, LEEFELDT, CUMMING, DAY, ASHFORD, WAGSTAFF, HUTCHINSON, ASHFORD AND KEMPSON.

Sound: TYNDALL, TAYLOR, CAPSTICK, ZAHM.

Geometrical Optics: HERMAN, ALDIS, HEATH, PARKINSON, PERCIVAL, WHITTAKER, LEATHEM, SEARLE, SOUTHALL (*Geometrical Optics and Elementary Optics*), S. P. THOMPSON (*Optical Tables and Data*); VON ROHR, *Theory of Optical Instruments*, trans. by R. Kantchack, and A. GLEICHEN, *Theory of Modern Optical Instruments*, trans. by Elmsly and Swain.

Household Science: HALE, LYNDE.

Mechanics: PERRY (*Applied Mechanics*), BARTON, COX, THOMSON AND TAIT, LAMB (*Dynamics, Statics*); CRABTREE (*Spinning Tops*).

Hydromechanics: GREENHILL, BASSET, BARTON.

Sound (or Acoustics): DONKIN, RAYLEIGH, HELMHOLTZ, AIRY, KOENIG, LAMB, BARTON.

Elasticity: WILLIAMSON, LAMB, IBBETSON, LOVE, TODHUNTER, SEARLE.

Physical Optics: DRUDE, JAMIN, VERDET, BASSET, GLAZEBROOK, MACLAURIN, MASCART, SCHUSTER, WOOD, PRESTON, POYNTING (*Pressure of Light*), GEHRCKE, MALLIK, KAYSER.

Heat and Thermodynamics: CLAUSIUS, BUCKINGHAM, PARKER, WHETNAM, PLANCK, PRESTON, MAXWELL, TAIT, PARTINGTON, DONNAN, LEWIS (*Physical Chemistry*), GIBBS, EWING (*The Production of Cold*); EWING (*The Steam Engine*); HOBBS (*The Thermo-dynamics of engine design*); CLAUDE. (*Liquid Air, Oxygen, Nitrogen*); DARLING (*Pyrometry*), LE CHATELIER, GRIFFITH (*Method of measuring temperatures*), R. BLONDLOT, *Introduction a l'étude de la Thermodynamique*; PHILLIPS, *Radiation*.

Properties of Matter: MEYER, *Kinetic Theory*; JEANS, *Dynamical Theory of Gases*; DARLING, *Liquid Drops and Globules*; TAIT, *Properties of Matter*; EDSEER, *General Physics*; FINDLAY, *Osmotic Pressure*; PHILIP, *Physical Chemistry*; BOYS, *Soap Bubbles*; WILLOWS AND HATCHEK, *Surface Tension*.

Electricity and Magnetism: POYNTING AND THOMSON, EMTAGE, MAXWELL, MASCART AND JOUBERT, GRAY, HEAVISIDE, DUBOIS, FOSTER AND PORTER, WEBSTER, STRUTT, SODDY, FOURNIER D'ALBÉ, ECCLES, BARLOW (*Mathematical Physics*, Vol. 1); KNAPP; JAMES (*Alternating Currents*); DRYSDALE (*Alternating Currents*), LIVEN, HUTCHINSON, TURNER, *Wireless Telegraphy and Telephony*.

Relativity: CONWAY, CUNNINGHAM, ROBB, SILBERSTEIN, TOLMAN, EDDINGTON, CARMICHAEL, LAWSON, FREUNDLICH, CARR, EINSTEIN.

Modern Theories: COMSTOCK AND TROLAND, DUNCAN, BRAGG (*X-rays and Crystal Structure*), SODDY, KAYE (*X-rays*); J. J. THOMSON, RUTHERFORD, CROWTHER (*Molecular Physics, Ions and ionising radiations*).

Practical Physics: LOUDON AND MCLENNAN, BOWER AND SATTERLY. STEWART AND GEE, BARNES, GLAZEBROOK AND SHAW, KOHLRAUSCH. AYRTON, NICHOLS, FINDLAY, WATSON, SCHUSTER AND LEES, SEARLE, CLAY (*Light*), TUTTLE (*An Introduction to Laboratory Physics*).

Practical Mathematics (and Mechanics): CLARKE, SAXELBY, CASTLE, CARSE AND SHEARER (*Pediorogram analysis*); GIBSON (*Graphs*); MINCHIN

AND DALE, STERN AND TOPHAM, PERRY; GIBSON (*Graphs*); DE BRAY, *Exponentials made Easy*; BRODETSKY, *Nomography*.

Calculus (suitable for Physics students): EDWARDS, EDSER, LODGE, PROCTOR, BLAINE, MERCER, PERRY (for Engineers), GIBSON, MELLOR (*Higher Mathematics for students of Physics and Chemistry*), GRAHAM, ORMSBY, GODFREY AND SIDDONS, LOVE, LAMB, PIAGGIO (*Differential Equations*).

Theory of Measurements and Errors: LUPTON, STEVENS, MACGREGOR, GOODWIN, TUTTLE, HOLMAN, MERRIMAN, JOHNSON.

Mathematical and Physical Tables: BOTTOMLEY, CASTLE, CLARKE, CHAMBERS, DALE, HALL, KAYE AND LABY, MACFARLANE, MCAULAY, the Smithsonian, LONGLEY, WOODWARD, CHAPPELL.

The Slide Rule: BLAINE, DUNLOP AND JACKSON.

BIOLOGY

R. R. WRIGHT, M.A., D.Sc., LL.D.....	Professor Emeritus.
B. A. BENSLEY, B.A., Ph.D.....	Professor of Zoology.
W. H. PIERSON, B.A., M.B., Associate Professor of Histology and Embryology.	
E. M. WALKER, B.A., M.B.....	Associate Professor of Biology.
A. G. HUNTSMAN, B.A., M.B.....	Associate Professor of Marine Biology.
A. F. COVENTRY, B.A.	Assistant Professor of Vertebrate Embryology.
W. A. CLEMENS, M.A., Ph.D.	Assistant Professor of Limnobiology.
E. H. CRAIGIE, Ph.D.. . . .	Lecturer in Comparative Anatomy and Neurology.
J. W. MACARTHUR, Ph.D.. . . .	Lecturer in Experimental Biology and Genetics.
W. H. T. BAILLIE, M.A., M.B.	Lecturer in Mammalian Anatomy.
J. R. DYMOND, M.A.	Lecturer in Systematic Vertebrate Zoology.
H. G. ARMSTRONG, M.B.	Demonstrator.
N. K. BIGELOW, B.Sc.....	Assistant in Systematic Biology.
MISS N. H. C. FORD, B.A.	Special Assistant in Biology.
H. DEW. BALL, M.B.	Class Assistant.
G. A. DAVIS, B.A., M.B.	Class Assistant.
A. E. MCCULLOCH, B.A., M.B.	Class Assistant.
J. H. A. MACDONALD, M.B.. . . .	Class Assistant.
J. M. MACDONALD, M.D., C.M.....	Class Assistant.
A. G. MCPHEDRAN, B.A., M.B.....	Class Assistant.
W. E. L. SPARKS, M.B.....	Class Assistant.
P. D. SPOHN, M.B.....	Class Assistant.
R. S. STONE, B.A...	Class Assistant.
L. A. PEQUEGNAT, M.B.	Class Assistant.
O. C. J. WITHROW, M.B...	Class Assistant.
F. C. HAMILTON	Class Assistant.
W. J. K. HARKNESS.....	Class Assistant.
N. A. MCCORMICK.....	Class Assistant.
N. F. MORRISON.....	Class Assistant.
F. B. ADAMSTONE, B.A.....	Research Assistant.
A. H. LEIM, B.A.....	Research Assistant.

Courses extending over only the Michaelmas or the Easter term are indicated as (m) and (e) respectively

With the exception of Course I, the lectures and practical instruction in this department are given in the University Biological Building. The instruction includes courses in General Biology, Zoology, Comparative Anatomy, Histology and Embryology, these courses being indicated in the various prescriptions as Zoology 2, 3, 4, etc.

For supplementary reading, except as specified below, the General Reading List of the Department may be consulted.

The following courses are provided:

PASS COURSES

1. Elementary Science: A course of seventy-five lectures on the general principles and applications of science. This is a co-operative course, given by members of the departments of Physics, Chemistry, Geology, Botany and Zoology

2 Elementary Biology: (a) A general educational course of two hours a week on the principles of science as applied to living organisms. The instruction is chiefly zoological, emphasis being placed upon the history of animal types and upon the biological aspects of the nature and social development of mankind. (b) A practical course of fifty hours in illustration of the principles and laboratory methods of Biology.

3. Invertebrate Zoology: A course of one hundred hours lectures and laboratory work on the elements of the principal branches of zoology as applied to the lower animals.

4. Vertebrate Zoology: A course of one hundred hours lectures and laboratory work on the principal branches of zoology as applied to vertebrates, with special reference to those of human application.

HONOUR COURSES

5. Elementary Zoology: A course of two lectures a week throughout the Easter term on the nature, structure and classification of animals. For Honour Science students.

6. Elementary Zoology: A laboratory course of seventy-five hours on the general structure of the animal body, its organs and tissues and their functions; principles of adaptation, specialisation, and homology, based on selected types. Text-book: HEGNER, *College Zoology*. For reference: PARKER AND HASWELL, *Text-book of Zoology* (e).

7 Comparative Anatomy: A laboratory course of one hundred and fifty hours, comprising dissection and comparative study of selected vertebrate types: Part 1, Mammalian Anatomy (m); Text-book: BENSLEY, *Anatomy of the Rabbit*; Part 2, Anatomy of Lower Chordates (e). For reference: PARKER, *Zootomy*; KINGSLEY, *Vertebrate Zoology*; PARKER AND

HASWELL, Text-book, Vol. 2; WIEDERSHEIM, *Comparative Anatomy*; REYNOLDS, *Vertebrate Skeleton*, KINGSLEY, *Comparative Anatomy*

8 Vertebrate Zoology: A course of twenty-five lectures on the system, structure and history of the vertebrates. For reference, as above (7); GADOW, *Classification of Vertebrata*; SMITH WOODWARD, *Vertebrate Palæontology*.

9. Invertebrate Zoology. A course of twenty-five lectures and seventy-five hours laboratory work on the system and morphology of the invertebrates. Text-book: PARKER AND HASWELL, Vol. I. (m).

10 A course on mammalian anatomy and histology and on the natural history of animal foods. For Household Science students (m).

11 Parasitology: A course of lectures and laboratory work on the structure and life history of animal parasites, particularly those which infest man. Text-book. CHANDLER, *Animal Parasites and Human Disease*. For reference: PARKER AND HASWELL, *Text-book of Zoology*, vol. I.; FANTHAM, STEPHENS AND THEOBALD, *Animal Parasites of Man*, RILEY AND JOHANNSEN, *Medical Entomology*; DOANE, *Insects and Disease*; PIERCE, *Sanitary Entomology*.

12 Zoological Collection. Students entering the Third Year in the special course of Biology are required to submit, as evidence of field proficiency, a collection of invertebrate animals from a prescribed group, together with an essay on the character and habits of the forms collected. Special directions may be had on application to the Biological Department.

13. Vertebrate Embryology. A course of twenty-five lectures on the embryology of the vertebrates

14. A course of one hundred hours on limnobiology with special reference to the economic biology of fresh-water organisms.

15. History and Theory of Biology. An opportunity is afforded to advanced students to become acquainted with the main problems of biology and with the history of the subject. The instruction includes fifty lectures and conferences conducted by different members of the staff, and a course of prescribed reading from advanced texts and current literature. The library is provided with the various works for consultation, a partial statement of which will be found in the departmental reading list.

15a. History of Biological Science. A co-operative course dealing with the historical development of the biological branches. For the Zoological part see Course 15.

16. Vertebrate Embryology: A laboratory course of one hundred hours on the general embryology of the vertebrates. For reference. JENKINSON, *Vertebrate Embryology*; HERTWIG, *Lehrbuch der Entwicklungsgeschichte*; LILLIE, *Development of the Chick*; BAILEY AND MILLER, *Embryology*; KELLICOTT, *General Embryology, Chordate Development*; PRENTISS, *Text-book of Embryology*, GRAHAM KERR, *Embryology*; MARSHALL, *Physiology of Reproduction*.

17. A course of one hundred hours on the principles and practical methods of genetics.

18. Structural Neurology: A course of lectures and laboratory work on the structure and development of the vertebrate nervous system. For reference: EDINGER, *Anatomy of the Nervous System*; HERRICK, *Introduction to Neurology*.

19. Zoological Collection: Students entering the Fourth Year in any one of the subdivisions of Biology are required to submit a collection of vertebrate animals from specified groups, together with an essay on the characters and habits of the forms collected. For reference: JORDAN, *Manual of Vertebrates*.

20. A lecture and laboratory course of one hundred hours on general invertebrate and vertebrate histology and cytology, including histological technique. Text-book: DAHLGREN AND KEPNER, *Principles of Animal Histology*. For reference: WILSON, *The Cell in Development and Inheritance*; GURWITSCH, *Morphologie und Biologie der Zelle*; SCHNEIDER, *Histologie der Thiëre*; PRENANT, BOUIN, MAILLARD, *Traité d'Histologie* (Vol. I., Cytologie); SHARP, *Introduction to Cytology*.

21. Vertebrate Zoology. A practical course of one hundred hours of laboratory and museum work on the morphology, classification and distribution of the vertebrates. For reference: GADOW, *Classification of Vertebrates*, FLOWER AND LYDEKKER, *Mammals Living and Extinct*, LYDEKKER, *Geographical History of Mammals*, *Cambridge Natural History*, Vols. vii-x; REYNOLDS, *The Vertebrate Skeleton*; FLOWER, *Osteology of the Mammalia*; SMITH WOODWARD, *Outlines of Vertebrate Palæontology*; PARKER AND HASWELL, Vol. 2, WILLEY, *Amphioxus*; WIEDERSHEIM, *Comparative Anatomy*.

22. Advanced Invertebrate Zoology: A course of one hundred hours of lectures, laboratory and museum work on the morphology, embryology, classification and distribution of the invertebrates. This course is also designed to give training in laboratory methods and microscopic technique. For reference: PARKER AND HASWELL, Vol. I.; HERTWIG's *Zoology*, edited by Kingsley; *Cambridge Natural History*, Vols. I.-VI.; KORSCHÉLT AND HEIDER, *Embryology*; SCHNEIDER, *Histologie der Thiëre*; selected papers; LEE, *Microtomist's Vade Mecum*; GUYER, *Animal Micrology*.

23. A special course of one hundred hours on the system and natural history of animals, with special reference to those of Ontario or of Canada.

Research: The members of the staff in this department are prepared to suggest problems for investigation in certain branches and to provide materials and laboratory facilities for properly qualified students. See "Announcement of Graduate Courses".

COURSES IN THE FACULTY OF MEDICINE

24. A course of ninety lectures serving as an introduction to the biological fields in relation to medicine. The topics include (1) the general nature of

living organisms and of cell processes, (2) the types of lower organisms of interest to students in Medicine, (3) the elements of comparative anatomy, and (4) biological principles as applied to man.

25 A laboratory course of one hundred and eighty hours, including microscope practice, elementary experimental studies on the nature of cell processes, types of lower organisms, and a selected list of vertebrates.

The entire course of two hundred and forty hours in the second year of Medicine consists of Courses 26-29.

26. A course of ten lectures and twenty hours laboratory work introductory to embryology and histology.

27. A course of fifteen lectures and sixty hours laboratory work on histogenesis and general histology.

28. A course of twenty lectures and forty hours laboratory work on the development of the human body.

29. A course of fifteen lectures and sixty hours laboratory work on human microscopic anatomy.

30. An introductory course of fifty lectures on the principles of evolution heredity and eugenics. Second Year Medical option.

31. A course of sixty hours laboratory work on embryology (including technique) with special reference to the problems of mammalian and human embryology. Third Year Medical option.

32. A course of sixty hours laboratory work on advanced vertebrate histology and cytology, including technique. Third Year Medical option.

33. Parasitology. Third Year Medical option. See Course 11.

34. History and Theory of Biology. Third Year Medical option. See Course 15.

35. Structural Neurology. Third Year Medical option. See Course 18.

COURSE IN THE FACULTY OF APPLIED SCIENCE

36. A practical course in experimental biology including the general principles of biology and microscope practice with the lower organisms.

COURSES IN THE FACULTY OF FORESTRY

In addition to Courses 5 and 6, which are taken by students in Forestry, the following special courses are provided:

37. Economic Entomology; twenty-five lectures and fifty hours laboratory work (e). Text-book: SANDERSON AND JACKSON, *Elementary Entomology*.

38 A short course on the principles of conservation as applied to animals.

UNIVERSITY EXTENSION

39 An elementary course on the general structure and functions of the animal body. The instruction is primarily for teachers, emphasis is being placed upon method, classification and natural history of animals, and the materials of nature study.

BOTANY

J. H. FAULL, B.A., Ph.D.	Professor
R. B. THOMSON, B.A.	Associate Professor.
H. B. SIFTON, M.A.	Assistant Professor (Research).
G. H. DUFF, M.A.	Lecturer.
Miss J. G. WRIGHT, M.A.	Lecturer.
H. P. BELL, B.Sc., M.A.	Assistant.
G. H. BERKELEY, M.A.	Assistant.
Miss H. I. HAINING, M.A.	Assistant.
C. H. MCLEOD, B.A.	Assistant.
A. R. WALKER, M.A.	Assistant.
G. D. DARKER	Assistant.
Miss K. M. MILLAR	Assistant.

Courses extending over only the Michaelmas or the Easter term are indicated as (m) and (e) respectively.

The lectures and practical instruction in this subject are given in the Botany and Forestry Building.

The following courses are provided:

PASS COURSES

1. Composite Science Course. See p. 121.

2a Introductory Course in Botany: An introductory course of two hours a week on the general principles of Biology based mainly on the seed plants. Text-books: GANONG, *A Textbook of Botany for Colleges*; BERGEN, *A Key and Flora* (Northern and Central States Edition). For reference: KERNER AND OLIVER, *Natural History of Plants*.

2b A laboratory course of two hours a week in connection with Course 2a.

3. A lecture and laboratory course dealing with the general characteristics of each of the great primary divisions of the vegetable kingdom, with the general course of evolution within these divisions, and their relationships one to the other, with the typical habits and distribution of the plants of each group and their place in the economy of nature and of man. Four hours a week. Text-book: CURTIS, *Nature and Development of Plants*; GANONG, *A Textbook of Botany for Colleges*.

4. A lecture and laboratory course on the physiology and the adaptive relationships of plants; and on the general principles of heredity and plant breeding. Four hours a week.

HONOUR COURSES

5. Elementary Botany: A course of twenty-five lectures on the life, structure and classification of plants. Text-book: CURTIS, *Nature and Development of Plants*. For reference: COULTER, BARNES AND COWLES, *Text-*

book of Botany, GANONG, *A Text-book of Botany for Colleges*; KERNER AND OLIVER, *Natural History of Plants* (m).

6 A laboratory course of fifty hours in connection with Course 5 (m).

7 Phanerogamic Botany: A course of twenty-five lectures and fifty hours laboratory work on the anatomy and morphology of the flowering plants. Text-book: STRASBURGER, JOST, SCHENCK AND KARSTEN, *Text-book of Botany*, 4th English Edition (1912), and GRAY, *New Manual of Botany*. For reference: COULTER, *Seed-Plants*; BRITTON AND BROWN, *An Illustrated Flora* (e)

8. Classification of Flowering Plants: A lecture and laboratory course of fifty hours in which representatives of the main divisions of the flowering plants are studied in illustration of the fundamental principles of classification. Reference is also made to distribution, especially of the local flora, and to the food plants and other economic plants of the group (m).

9. Botanical Collection: Students entering the Second Year in Biology are required to submit a collection of at least 100 species of flowering plants, properly pressed, classified, mounted and labelled. For reference: GRAY, *New Manual of Botany*; BRITTON AND BROWN, *An Illustrated Flora of the Northern United States and Canada*

10. A course of 100 hours dealing with the lower seed-plants, living and fossil. Text-book: COULTER AND CHAMBERLAIN, *Morphology of Gymnosperms*. For reference: SCOTT, *Fossil Botany*; PENHALLOW, *North American Gymnosperms*, DEBARY, *Comparative Anatomy of the Phanerogams and the Ferns*, JEFFREY, *Anatomy of Woody Plants*.

11. A course of 100 hours dealing with the higher seed-plants. Text-book: COULTER AND CHAMBERLAIN, *Morphology of Angiosperms*. For reference: DEBARY, *Comparative Anatomy of the Phanerogams and the Ferns*; JEFFREY, *Anatomy of Woody Plants*.

12. Cryptogamic Botany: A lecture and laboratory course of one hundred and twenty-five hours on the system and morphology of the higher cryptogams. For reference. COULTER, BARNES AND COWLES, *Text-book of Botany*, Vol. I.; CAMPBELL, *Mosses and Ferns*; BOWER, *Origin of a Land Flora* (m).

13. An elementary course on the morphology and physiology of Bacteria, Yeasts and Molds for Household Science students. For reference: BUCHANAN, *Household Bacteriology*; MARSHALL, *Microbiology*; SAVAGE, *Bacteriological Examination of Food and Water*, CONN, *Bacteria, Yeasts and Molds in the Home*; COULTER, BARNES AND COWLES, *Text-book of Botany* (e).

14. A lecture and laboratory course of one hundred hours on the system and morphology of the algae, fungi, bacteria, and slime molds. For reference: LISTER, *Mycetozoa*; JORDAN, *General Bacteriology*; STRASBURGER, JOST, SCHENCK AND KARSTEN, *Text-book of Botany*; DEBARY, *Comparative Morphology and Biology of the Fungi, Mycetozoa and Bacteria*; DUGGAR, *Fungous Diseases of Plants*.

15. Classification of cryptogams: A lecture and laboratory course of fifty hours in which representatives of selected groups of cryptogams are studied from the taxonomic standpoint. Reference is also made to distribution, especially of the local flora (e).

16. Botanical Collection: Students entering the Fourth Year in Biology are required to submit a collection of cryptogamic plants from prescribed groups.

17. Plant Physiology: A course of twenty-five lectures and seventy-five hours laboratory work on the physiology of plants. For reference: JOST, *Plant Physiology*; GANONG, *The Living Plant*; PFEFFER, *Physiology of Plants*; PALLADIN (Livingston), *Plant Physiology* (e).

18. Oecology and Plant Geography: A course on factors of habitat and the adaptations of plants to them; plant associations and their geographical distribution. For reference: WARMING, *Ecology of Plants*; SCHIMPER, *Plant Geography*. One hundred hours.

19. An advanced course of one hundred hours on the physiology of plants.

20. A lecture and seminar course on the history of Botany and on the general principles of Biology as related to botanical problems. Text-book: WALTER, *Genetics*. A list of other assigned literature is obtainable on application to the Department. Students proposing to take this course should secure this list at the close of their third year.

20a. Heredity and Plant Genetics: A lecture and laboratory course of one hundred hours.

21. Students in the Third and Fourth Years of the Special Course in Biology will be expected to show a reading knowledge of French and German.

22. Palaeobotany: A course of fifty hours on fossil plants.

23. Research studies on selected topics for advanced students. One hundred and fifty hours.

Research. The members of the staff in this department are prepared to suggest problems for investigation in certain branches and to provide materials and laboratory facilities for properly qualified students.

COURSE IN THE FACULTY OF APPLIED SCIENCE

24. A lecture and laboratory course of seventy-five hours on fundamental biological principles.

COURSE IN THE FACULTY OF FORESTRY

25. Plant Pathology: A lecture and laboratory course of fifty hours on the lower Cryptogams, and on the diseases of plants, especially of trees.

COURSES IN THE DEPARTMENT OF VETERINARY SCIENCE

26. Elementary Botany and Poisonous Plants: A course of fifty hours. Text-book: BERGEN AND CALDWELL, *Introduction to Botany*. For reference: PAMMEL, *Manual of Poisonous Plants*.

27. Special course on poisonous plants for second year students in Veterinary Science.

ANATOMY

J. PLAYFAIR McMURRICH, M.A., PH.D., LL.D.	<i>Professor.</i>
J. C. WATT, M A., M.D.	<i>Assistant Professor.</i>
H. A. CATES, M.B.	<i>Assistant.</i>
R. O. FISHER, M.B.	<i>Assistant.</i>
A. S. LAWSON, M B.	<i>Assistant.</i>
E. A. McCULLOCH, B A., M.B.	<i>Assistant.</i>
K. G. MCKENZIE, M.B.	<i>Assistant.</i>
L. C. PALMER, M B.	<i>Assistant.</i>
L. A. PEQUEGNAT, M B.	<i>Assistant.</i>
L. B. ROBERTSON, B.A., M B	<i>Assistant.</i>
E. E. SHOULDICE, M B.	<i>Assistant.</i>
P. D. SPOHN, M B.	<i>Assistant.</i>
H. B. VANWYCK, B A., M.B.	<i>Assistant.</i>
F. W. WESTON, B A., M.B.	<i>Assistant.</i>
H. W. WOOKEY, M.B., F.R.C S.	<i>Assistant.</i>

1. Practical Anatomy—A laboratory course extending throughout the year

2. Anatomy of the Nervous System.—A course of three lectures a week, with demonstrations twice a week, throughout the Michaelmas term

3. Topographic Anatomy.—A course of two lectures a week throughout Easter term.

4. Anatomical Research—Opportunities will be afforded to properly qualified students for carrying on investigation in anatomical problems.

Text-books: PIERSOL, *Human Anatomy*; MORRIS, *Human Anatomy*; CUNNINGHAM, *Text-book of Anatomy*, GRAY, *Anatomy; Guide to the Dissection of the Human Body*, SOBOTTA-McMURRICH, *Atlas and Text-book of Human Anatomy*; SPALTEHOLZ, *Hand Atlas of Human Anatomy*; TOLDT, *Atlas of Human Anatomy*, McMURRICH, *The Development of the Human Body*; HERRICK, *Introduction to Neurology*, VILLIGER, *Brain and Spinal Cord*; BARKER, *The Nervous System*, RANSON, *The Anatomy of the Nervous System*.

BIOCHEMISTRY

A. HUNTER, M A., B Sc., M.B., CH.B.	<i>Professor.</i>
H. WASTENEYS, PH D	<i>Associate Professor.</i>
MISS C C. BENSON, B A., PH.D	<i>Associate Professor of Physiological Chemistry in the Faculty of Household Science.</i>
H. B. SPEAKMAN, M.Sc.	<i>Associate Professor of Zymology.</i>
MISS C. M. HARWOOD, B.A , <i>Instructor in Food Chemistry in the Faculty of Household Science.</i>	
MISS J. McFARLANE, M.A.	<i>Demonstrator.</i>
H. BORSOOK, B.A.	<i>Fellow.</i>
J. A. MORRELL, B.A.	<i>Fellow.</i>
R. G. SMITH, B.A.	<i>Fellow.</i>
L. A. WEISSGERBER, M.B.	<i>Fellow.</i>
A. M. WYNNE, M.A.	<i>Research Assistant in Zymology.</i>

The following courses of instruction, each extending throughout the session, are offered:

1. A course of lectures in General Biochemistry; two a week.
2. A course of lectures and conferences in Advanced Biochemistry; two a week.
3. A laboratory course in General Biochemistry, four to six hours a week.
4. An advanced laboratory course in Biochemistry; six or more hours a week.
5. A course of lectures on the Principles of Nutrition; one hour a week during the Easter term. Open only to students who have taken Course 1.
6. An introductory course consisting of 60 hours of lectures and laboratory work, intended mainly for veterinary students.
7. Research in Biochemistry.

Text-books and Works of Reference:

(a) Elementary or General: HAMMARSTEN, *Text Book of Physiological Chemistry*; ABDERHALDEN-HALL, *Text Book of Physiological Chemistry*; MATHEWS, *Text Book of Physiological Chemistry*; ROBERTSON, *Principles of Biochemistry*

(b) Advanced or Special. *Monographs on Biochemistry*, edited by Plimmer and Hopkins; ROBERTSON, *Physical Chemistry of the Proteins*; TAYLOR, *Digestion and Metabolism*, LUSK, *Science of Nutrition*; EFRONT, *Biochemical Catalysts in Life and Industry*, EULER, *General Chemistry of the Enzymes*; ABDERHALDEN, *Biochemisches Handlexikon*; NEUBERG, *Der Harn*.

Laboratory Handbooks:

(a) Elementary: PLIMMER, *Practical Organic and Biochemistry*; HAWK, *Practical Physiological Chemistry*; FOLIN, *Laboratory Manual of Biological Chemistry*, HALLIBURTON, *Essentials of Chemical Physiology*, COLE, *Practical Physiological Chemistry*.

(b) Advanced: ABDERHALDEN, *Handbuch der biochemischen Arbeitsmethoden*; ELLINGER, *Analyse des Harns*.

FOOD CHEMISTRY

MISS C. C. BENSON, PH D.....	Associate Professor.
MISS C. M. HARWOOD, B.A.....	Instructor.
MISS M. C. GALT, B.A....	Instructor.
MISS R. M. NEVILL, B.A.	Assistant.

HONOUR COURSES

1. A course of lectures, two a week, on the Chemistry of Foods and Nutrition
2. A laboratory course on the Chemistry of Foods. Six hours a week.

3 An advanced laboratory course on the Chemistry of Foods and on problems of Nutrition, with discussion of supplementary reading.

4 Research work in Food Chemistry and Metabolism.

PASS COURSES

5. Chemistry of Food Constituents. Laboratory work for pass students of the Third Year. One afternoon a week.

6. Composition of Foods. Lectures and laboratory work for pass students of the Fourth Year. Four hours a week.

Text-books and works of reference include WINTON, *Food Analysis*; LEACH, *Food Inspection and Analysis*, LUSK, *Science of Nutrition*, PAVLOV, *The Work of the Digestive Glands*; ALLYN, *Elementary Applied Chemistry*; SNELL, *Household Chemistry*; SNYDER, *Human Foods*, HALLIBURTON, *Essentials of Chemical Physiology*, Canadian and American bulletins on the chemistry of foods.

PHYSIOLOGY

J. J. R. MACLEOD, M.B., CH.B., D.P.H.	.....	Professor of Physiology.
J. M. D. OLMSTED, M.A., PH.D.		Assistant Professor of Physiology.
N. B. TAYLOR, M.B.	.....	Lecturer.
J. W. MACARTHUR, M.A.	.....	Demonstrator.
W. P. WARNER, M.B.	.....	Demonstrator.
C. H. BEST, B.A.	.....	Fellow.
MISS C. J. FRASER, M.A.	.....	Fellow.
MRS. J. M. LANG, B.A.	.....	Fellow.
J. K. LATCHFORD, M.B.	.....	Fellow.
E. C. NOBLE, B.A.	.....	Fellow.
S. U. PAGE, M.A.	.....	Fellow.
E. FIDLAR, B.A., M.B.	.....	Research Assistant.

The following courses of instruction each extending throughout the Session are offered:

1. Systematic lectures and demonstrations in human physiology. Four a week.
2. Lectures in general physiology.
3. Advanced lectures. Two a week.
4. General laboratory courses. (Total of 135 hours).
 - (a) Neuro-muscular Physiology.
 - (b) Circulation, respiration and digestion.
 - (c) Nervous system and special senses.
5. Laboratory course in general physiology.
6. Advanced laboratory courses.
7. Research in physiology.
8. Journal Club. One hour a week.
9. Elementary lectures on the principles of human physiology.

Text-books and works of reference: G. N. STEWART, *Manual of Physiology*; J. J. R. MACLEOD, *Physiology and Biochemistry in Modern Medicine*; STARLING's or HOWELL's *Physiologies*, BAYLISS, *General Physiology*; LUCIANI, *Physiology* (trans. by F. Welby), *Monographs in Physiology* (ed. by E. H. Starling). *Monographs in Experimental Biology* (ed. by J. Loeb and W. J. V. Osterhout). Other works important for consultation are MARSHALL, *Physiology of Reproduction*, SCHAFER, *Endocrine Organs, Text-book of Physiology* (ed. by E. A. Schafer); *Recent and Further Advances in Physiology* (ed. by Leonard Hill), C. S. SHERRINGTON, *Mammalian Physiology*.

CHEMISTRY

W. L. MILLER, B.A., PH.D.	..	..	Professor of Physical Chemistry.
F. B. ALLAN, PH.D.	..	..	Professor of Organic Chemistry, Secretary of the Department of Chemistry.
F. B. KENRICK, M.A., PH.D.	..	..	Professor.
J. B. FERGUSON, B.A.	..	..	Associate Professor.
J. T. BURT-GERRANS, PHM.B., M.A.	..	..	Assistant Professor of Electrochemistry.
L. J. ROGERS, B.A.Sc.	..	..	Assistant Professor of Analytical Chemistry.
W. S. FUNNELL, M.A.	..	..	Assistant Professor.
W. H. MARTIN, M.A.	..	..	Lecturer.
J. E. CLARK, B.A.Sc.	..	..	Assistant.
W. R. FETZER, M.A.	..	..	Demonstrator in Electrochemistry.
D. M. FINDLAY, B.A.	..	..	Assistant.
C. S. GILBERT, B.S., M.A.	..	..	Assistant.
E. HAAS, B.S., M.A.	..	..	Assistant.
W. B. LEAF, B.S., M.A.	..	..	Assistant.
F. R. LORRIMAN, B.A.	..	..	Assistant.
W. G. NOBLE, B.A.	..	..	Assistant.
J. H. RATCLIFF, B.A.Sc.	..	..	Demonstrator in Electrochemistry.
J. W. REBBECK, B.Sc., M.A.	..	..	Assistant.
A. M. THOMAS, B.A.Sc.	..	..	Assistant.
W. K. THOMPSON, B.A.Sc.	..	..	Assistant.
A. E. R. WESTMAN, B.A.	..	..	Assistant.
G. WILLIAMS, B.S., M.A.	..	..	Assistant.
K. I. WISMER, B.A.	..	..	Assistant.

This subject forms part of the courses of study prescribed for students proceeding to degrees in Arts, Applied Science, Forestry, Medicine, and Veterinary Science.

In the Honour Course "Chemistry and Mineralogy" in the Faculty of Arts, provision is made by suitable options for students who wish to qualify as Specialists in Science under the Department of Education; in the Honour Course "Chemistry" no such provision is made. In both these courses the laboratory work of the fourth year consists of research

in one of the branches of chemistry; and arrangements have been made under which this work may be carried out by students of the "Chemistry" course either in the Chemical Laboratory or in the laboratories of the department of Chemical Engineering or of Biochemistry, and in the case of students in the "Chemistry and Mineralogy" course either in the Chemical Laboratory or in the laboratories of the department of Chemical Engineering

LECTURES

The following courses are provided:

1. Elementary Chemistry: An introductory course in general chemistry with experimental illustrations. Two lectures a week during session.
2. A course of lectures on the influence of chemistry on the progress of civilization. Two lectures a week during session. Note—These lectures are intended for fourth year Pass students but if the class is too small to justify the giving of this course, Course 7 will be substituted.
3. Elementary Organic Chemistry: A course of experimental lectures on the systematic classification of the aliphatic compounds and some of the more common aromatic compounds. Two lectures a week during session.
4. Organic Chemistry: The work in Course 3 is reviewed and extended, fuller consideration being given to the isocyclic compounds. Two lectures a week during session.
5. Advanced Organic Chemistry: A course on heterocyclic compounds, synthetic methods and stereochemistry. Two lectures a week during session.
- 6a. History of Chemistry: A short course of lectures, commencing in January, on the development of chemistry and chemical theory.
- 6b. Essays on Prescribed Topics.
7. Elementary Physical Chemistry: An experimental course on the elements of chemical mechanics and electrochemistry. Fifty lectures.
8. Elementary Electrochemistry: Twenty-five lectures illustrated by experiments
9. A course on the application of geometry and the calculus to physico-chemical problems. Fifty lectures.
10. Chemical equilibrium in two-component systems, based on the theory of chemical potential. Fifty lectures.
11. Advanced Physical Chemistry. The phase rule, chemical thermodynamics, and chemical kinetics. Fifty lectures.
- 12a. Applied Chemistry.
- 12b. Applied Organic Chemistry.

LABORATORY WORK

13. Elementary quantitative chemistry.
14. Elementary quantitative chemistry (shorter course).
15. Analysis, chemical mechanics and organic preparations. Four hours week.
16. Quantitative and qualitative analysis.
17. Analysis of minerals and rocks.
18. Analysis, organic preparations and physico-chemical measurements.
19. Practical organic chemistry.
20. Physico-chemical measurements, and electro-chemistry.
21. Research work for advanced students.
24. A short course of physico-chemical measurements, including electrical conductivity, migration, and freezing point of solutions.
25. Electrochemistry, to accompany lecture Course 8.
26. A laboratory course to accompany course 2
27. Analysis, including electroanalysis.
28. Chemical equilibrium between salts and their aqueous solutions
29. Chemical equilibrium, including silicates.

LABORATORY REGULATIONS

Each student proposing to attend lectures or practical work in the chemical laboratory must apply for a card which will have marked on it the number of his seat in the lecture room, of his working place in the laboratory and of his locker. These cards will be given only to students presenting their registration cards, and no working place in the laboratory will be allotted until a deposit of four dollars (for some classes three dollars) has been made. Each student will be held responsible for the seat, etc., allotted him, and no change may be made without permission. At the close of the Easter term this card must be presented for certificate of attendance.

Each student is provided with a suitable note-book in which to keep an account of the work done by him during the year. These books will be examined from time to time, and marks will be assigned. The student's standing in practical chemistry is based upon these marks, together with those assigned for the practical examinations of the term, and for written examinations on the work.

An account will be kept with each student; all apparatus broken or destroyed and all fines will be charged against his deposit, which must be renewed when exhausted.

The apparatus provided is intended for use in the laboratory only, and may not be removed from the building. At the close of the term's work it must be returned clean and dry.

GEOLOGY AND PALÆONTOLOGY

A. P. COLEMAN, M.A., PH.D., F.R.S.	..Professor of Geology.
W. A. PARKS, PH.D.....	..Professor of Palæontology
A. MACLEAN, B.A.....	.. Assistant Professor.
W. S. DYER B.A..	.. Class Assistant.

PASS COURSES

1. Elementary Geology and Physiography: A course of twenty-five lectures is given weekly throughout the session. Works of reference: SCOTT, *Introduction to Geology*; DAVIS, *Physical Geography*; COLEMAN AND PARKS, *Elementary Geology*.

2. (a) A course of fifty lectures and (b) fifty hours' practical work, designed to cover the whole field in a general way. Works of reference: As in course No. 1.

3. Dynamic and Structural Geology. A shorter course for students of the pass course. Twenty-five lectures.

4. Palæontology: (a) A course of twenty-five lectures on Invertebrate and Vertebrate Palæontology; (b) a laboratory course of fifty hours

5. Historical Geology. A course of fifty lectures and fifty hours laboratory work on historical geology and palæontology with special reference to Canada.

HONOUR COURSES

6. Historical and Stratigraphical Geology and Palæontology. A course of fifty lectures is given throughout the session. Works of reference: SCOTT, *Introduction to Geology*; GEIKIE, *Text-book of Geology*, PIRRSO AND SCHUCHERT, *Text-book of Geology*.

7. Illustrative practical course to accompany No. 6. A course of thirty hours in the use of maps and sections, and the study of fossils typical of the different formations.

8. Dynamical and Structural Geology: A course of fifty lectures. Works of reference: GEIKIE, *Geology*; CHAMBERLIN and SALISBURY, *Geology*.

9. Invertebrate Palæontology: A course of fifty lectures throughout the session. Works of reference: Eastman's translation of ZITTEL's *Text-book of Palæontology*; NICHOLSON, *Manual of Palæontology*; STEINMANN-DÖDERLEIN, *Elemente der Palæontologie*; GRABAU, *North American Index Fossils*.

10. Invertebrate Palæontology: A laboratory course of seventy-five hours. Works of reference: As in course No. 9; Palæontological publications of the Geological Survey of Canada, and of the different State surveys; Bulletins and Monographs of the Geological Survey of the United States.

11. Drawing and Cartography: A practical course of fifty hours in the Faculty of Applied Science.

12. Archæan Geology: A course of twenty-five hours throughout the session. Works of reference: VAN HISE, *Precambrian Geology*; GEIKIE

Text-book of Geology; Reports of the Geological Survey of Canada and of the Ontario Department of Mines.

13. Glacial Geology and Physiography: A course of twenty-five lectures throughout the session. Works of reference: GEIKIE, *Great Ice Age*, PENCK, *Morphologie der Erdoberfläche*; DE LAPPARENT, *Géographie Physique*

14. Geological Surveying and Cartography: A course of field work and practical work in drafting. Three hours per week throughout the year.

15. Economic Geology: A course of fifty lectures throughout the session. Works of reference: KEMP, *The Ore Deposits of the United States and Canada*, TARR, *Economic Geology of the United States*, RIES, *Economic Geology of the United States*; BECK, *The Nature of Ore Deposits*; PHILLIPS, *Ore Deposits*; Reports of the Geological Survey of Canada and of the Ontario Department of Mines.

16. Practical Economic Geology: A course of fifty hours laboratory work to illustrate course No. 15.

17. Meteorology: A course of twenty-five lectures. Works of reference: DAVIS, *Elementary Meteorology*, HANN, *Klimatologie*.

18. Vertebrate Palæontology: A course of twenty-five lectures. Works of reference: WOODWARD, *Vertebrate Palæontology*; NICHOLSON AND LYDEKKER, *Manual of Palæontology*, ZITTELL, *Text Book of Palæontology*, Vol. II. (translation by Eastman).

19. Stratigraphic Palæontology: A course of seventy-five hours lectures and laboratory work. Works of reference: The publications in the Library of the Department, including various monographs on special subjects and the palæontological reports of the different states and societies.

20. Mining Geology: A course of twenty-five lectures on geological problems associated with mining, typical mining regions in Canada, the United States, and elsewhere being discussed from the geological side. Works of reference: As in courses Nos. 12 and 15.

21. Fifty hours laboratory work on the geology and palæontology of the Province of Ontario.

22. A shorter course of (a) fifty lectures and (b) seventy-five hours laboratory work on palæontology and stratigraphy.

23. A course of twenty-five lectures on Economic Geology and Geography for students in the course of Commerce.

24. Fifty hours of laboratory work on structural geology.

25. Twenty-five hours laboratory work on vertebrate palæontology.

26. Seventy-five hours laboratory work to supplement course 16.

27. Seventy-five hours in field palæontology.

MINERALOGY AND PETROGRAPHY

T. L. WALKER, M.A., PH.D.	Professor.
A. L. PARSONS, B.A.	Associate Professor.
J. E. THOMSON, B.A.Sc.	Assistant Professor.
W. L. SWANSON, B.A.	Assistant.
E. W. TODD, B.A.	Research Assistant.

For students in the Faculty of Arts of the University of Toronto the following courses of lectures and demonstrations have been arranged:

1. Elementary Mineralogy: A course of twenty-five lectures once a week throughout the year. Books of reference: DANA, *Text-book of Mineralogy*; ROGERS, *Mineralogy*.

2. A short practical course illustrative of the above, involving twenty hours' laboratory work. Books of reference: As for Course 1.

3. Morphological Crystallography: A course of twenty-five lectures once a week throughout the year. Books of reference: WALKER, *Crystallography*.

4. Blowpipe Analysis and Determinative Mineralogy: A laboratory course of three hours a week throughout the year (two hours a week for pass students). Books of reference: EAKLE, *Mineral Tables*; BRUSH-PENFIELD, *Blowpipe Analysis*.

5. Determinative Mineralogy: A laboratory course in continuation of Course 4. Two hours a week. Book of reference: BRUSH-PENFIELD, *Blowpipe Analysis*.

6. Physical Mineralogy: A course of fifty hours' lectures and laboratory work, introducing the student to optical and physical crystallography as a preparation for the study of microscopic petrography (seventy-five hours for pass students). Books of reference: DANA, *Text-book of Mineralogy*; WALKER, *Crystallography*.

7. Practical Crystallography, including goniometric measurements, crystal drawing, projection and calculation with experiments in physical mineralogy. One day a week during the Michaelmas term.

8. Systematic Mineralogy: A course of fifty hours' lectures and laboratory work, being a continuation of courses 1 and 2. Books of reference: DANA, *Text-book of Mineralogy*; EAKLE, *Mineral Tables*.

9. General Mineralogy: Twenty-five lectures on special subjects to be selected from year to year. Books of reference: KOBELL, *Geschichte der Mineralogie*; FOUQUÉ ET MICHEL-LÉVY, *Synthèse des Minéraux et des Roches*.

10. General Mineralogy: Practical course of seven hours a week throughout the year.

11. Petrography: One hour a week lectures and practical work throughout the session. Books of reference: KEMP, *Handbook of Rocks*, HARKER, *Petrology for students*.

12. Petrography: Two hours a week devoted to practical petrography, both macroscopic and microscopic. Books of reference: LUQUER, *Minerals in Rock Sections*, HARKER, *Petrology for Students*

13. Assaying: Laboratory work in the different branches of the subject, occupying three hours a week throughout the session.

14. Advanced Petrography: Twenty-five lectures on the characteristics of the rock-forming minerals and on general petrography. Book of reference: IDINGS, *Rock Minerals*.

15. Mineralography: Fifty hours laboratory work in the study of opaque minerals by microscopic methods in reflected light. Book of reference: DAVY AND FARNHAM, *Microscopic Examination of the Ore Minerals*.

16. A course in Mineral Analysis, seventy-five hours.

17. Metallurgy, an introductory course of twelve hours.

The work in Mineralogy is carried on in the Mineralogical Laboratories in the Chemistry and Mineralogy Building.

HOUSEHOLD SCIENCE

MEMBERS OF THE FACULTY OF HOUSEHOLD SCIENCE

MISS A. L. LAIRD, M.S.	Associate Professor.
MISS H. HILL, B.S.	Lecturer (<i>Michaelmas Term</i>).
MISS E. M. HICKMANS, M.Sc.	Lecturer.
MISS B. R. HARRIS, M.A.	Lecturer.
MRS. F. J. NETHERCOTT, M.A.	Lecturer (<i>Easter Term</i>).
MISS F. GRAPER, B.S.	Instructor.
MISS E. W. PARK, M.A.	Instructor.
MISS H. R. COATSWORTH, B.A.	Research Worker and Laboratory Assistant.

PASS COURSES

1a. History of Home Life: A course of lectures one hour a week throughout the session.

3a. Textiles and Household Management. A course of two lectures and one laboratory period a week throughout the session.

4a. Foods and Food Values. A course of two lectures and one laboratory period a week throughout the session.

HONOUR COURSES

1b. Household Science: A course of lectures one hour a week throughout the session.

2. Textiles and Household Management. A course of ten hours a week throughout the session. This includes (a) a study of textiles, (b) a study of metals, woods, etc., used in the home, and the principles underlying their care, (c) the house, (d) the home care of the sick.

3b. Foods and Food Values: A course of twelve hours a week throughout the session—lectures and laboratory work.

4b. Economics of the Household: A course of lectures and discussions two hours a week throughout the session. It includes the economics of spending, the division of the income, etc.

4c. Dietetics: A lecture course of two hours a week throughout the session and discussion periods, two hours a week. Methods of investigating the kind and amount of food required under varying conditions are discussed. Practical application of this knowledge is made in the construction of dietaries for different classes of people.

4d. An advanced laboratory course of six hours a week throughout the session. It includes practice in marketing and in preparing and serving meals and special diets. Each student is given the opportunity to investigate special problems bearing on her work.

COURSE IN THE FACULTY OF MEDICINE

5. A lecture course in food values and practical dietetics.

COURSE IN DEPARTMENT OF PUBLIC HEALTH NURSING.

6. A lecture course in nutrition and dietetics, family budgets are also discussed.

UNIVERSITY EXTENSION

7. A course in Food and Diet, of twenty lectures and ten laboratory periods.

8. A course of twenty lectures in Household Management.

Occasional Work: Under certain conditions, occasional students may be admitted to Courses 3a and 4a.

Graduate Work. Opportunities are offered in the laboratories to graduate students who desire to engage in research work.

Laboratory deposit fee: a deposit of three dollars (\$3.00) is required of each student taking laboratory courses. This amount, minus the cost of equipment and apparatus destroyed, will be returned at the end of the year.

Books of reference: CARTER, HOWE AND MASON, *Nutrition and Clinical Dietetics*; SHERMAN, *Chemistry of Food and Nutrition*; LUSK, *Science of Nutrition*; HESS, *Principles and Practice of Infant Feeding*; EDDY, *The Vitamine Manual*; BAILEY, *Source, Chemistry and Use of Food Products*; SHERMAN, *Food Products*; VULTÉ AND VANDERBILT, *Food Industries*; LEACH, *Food Inspection and Analysis*; WILEY, *Foods and Their Adulteration*; WELD, *Marketing of Farm Products*; MCKILLOP AND ATKINSON, *Economics, American Academy of Political and Social Science, Cost of Living*; HASKINS, *How to Keep Household Accounts*; SHEAFFER, *Household Accounting*; CAMPBELL, *Household Economics*; RICHARDS, *Cost of Living, Cost of Shelter*; RICHARDS AND ELLIOTT, *Chemistry of Cooking and Cleaning*;

RAVENHILL, *Household Administration*; TINKLER AND MASTERS, *Applied Chemistry*, Vol. I.; CLARK, *The Care of a House*; BALDERSTON, *Laundering*; MARSH, *Laundry Work*; BALDERSTON, *Housewifery*; VAN RENSSELAER, ROSE AND CANON, *Manual of Home Making*; HAMPTON-ROBB, *Nursing, Its Principles and Practice*; MAXWELL AND POPE, *Practical Nursing*; KINNE AND COOLEY, *Shelter and Clothing*; WOOLMAN AND MCGOWAN, *Textiles*; MCGOWAN AND WAITE, *Textiles*; DOOLEY, *Textiles*; KINNE, *Equipment for Teaching Domestic Science*; Government Bulletins; *Journal of Biological Chemistry*, *Journal of Home Economics*.

RELIGIOUS KNOWLEDGE

REV. W. R. R. ARMITAGE, M.A.....	Wycliffe College.
REV. H. S. BELLISLE, M.A.....	St. Michael's College.
W. T. BROWN, M.A., PH D.....	Victoria College.
REV. F. H. COSGRAVE, B.A., B.D.....	Trinity College.
REV. R. DAVIDSON, PH.D.	Knox College.
REV. H. T. F. DUCKWORTH, M.A.....	Trinity College.
REV. ALFRED GANDIER, M.A., D.D., LL.D.....	Knox College.
REV. W. T. HALLAM, M.A., D.D....	Wycliffe College.
S. H. HOOKE, M.A., B.D....	Victoria College.
REV. A. J. JOHNSTON, B.A....	Victoria College.
REV. E. A. MCINTYRE, M.A., B.D....	Wycliffe College.
REV. J. F. McLAUGHLIN, B.A., D.D.....	Victoria College.
REV. WILLIAM MANSON, M.A.	Knox College.
REV. J. H. MICHAEL, M.A.	Victoria College.
REV. H. C. S. MORRIS, M.A.....	Trinity College.
REV. H. W. K. MOWLL, M.A.....	Wycliffe College.
REV. V. J. MURPHY.	St. Michael's College.
REV. M. J. OLIVER, PH.M.	St. Michael's College.
REV. T. R. O'MEARA, D.D., LL.D.....	Wycliffe College.
E. T. OWEN, M.A.	Trinity College.
REV. C. VENN PILCHER, M.A., D.D.	Wycliffe College.
REV. W. A. POTTER, M.A., B.D.....	Victoria College.
REV. D. M. RAMSAY, D.D.	Knox College.
REV. W. ROLLO, M.A....	Trinity College.
REV. C. A. SEAGER, M.A., D.D.....	Trinity College.
REV. J. TODD, M.A.	Trinity College.
REV. F. H. WALLACE, M.A., D.D.....	Victoria College.

FIRST YEAR

- 1a. A first course in the English Bible. One hour.
- 1b. A first course in Natural and Revealed Religion. One hour.
- 1c. A first course in the language of the Greek New Testament. Three hours.
- 1d. Oriental Languages 1a, p. 78. One hour.

SECOND YEAR

- 2a. A second course in the English Bible. Two hours.
- 2b. A second course in Natural and Revealed Religion. Two hours.
- 2c. A second course in the language of the Greek New Testament. Not less than two hours.
- 2d. A course in Church History (Victoria). Two hours.
- 2e. Oriental Languages 2a, p. 78. Two hours.

THIRD YEAR

- 3a. A third course in the English Bible. Three hours.
- 3b. A third course in Natural and Revealed Religion. Three hours.
- 3c. A first course in the Literature and Language of Greek Testament. Three hours.
- 3d. A course in Church History. Three hours.
- 3e. A first course in the History and Philosophy of Religion. Three hours.
- 3f. Oriental Languages 3a, p. 79. Three hours.

FOURTH YEAR

- 4a. A fourth course in the English Bible. Three hours.
- 4b. A fourth course in Natural and Revealed Religion. Three hours.
- 4c. A second course in the Literature and Language of Greek Testament. Three hours.
- 4d. A course in Church History. Three hours.
- 4e. A second course in the History and Philosophy of Religion. Three hours.
- 4f. Oriental Languages 4a, p. 79. Three hours.

WORLD HISTORY

C. T. CURRELLY, M.A. *Professor of the History of Industrial Art.*
 MISS CORNELIA HARCUM, M.A., PH.D *Assistant.*

Students of the Third and Fourth Years will attend the same lectures and will take either course 1 or course 2.

- 1. A course on the History of Art.
- 2. A course on the Development of the Mechanical Industries.

These courses are to be taken in alternate sessions.

MILITARY STUDIES

W. R. LANG, D.SC., COLONEL, (late General Staff, C.E.F.) *Director.*
 G. S. CARTWRIGHT, C.B., C.M.G., BRIG.-GEN., (late R.E.). *Special Lecturer.*

These courses are options in all Arts courses of the second, third and fourth years respectively. Students who have had some military training—C.E.F., Militia, or Cadet Corps—are admitted.

PASS COURSE TIME-TABLE

	MONDAY	TUESDAY	WEDNESDAY
8			
9	1 Latin 2 German 3 Ethics 4 English	1 English 2 Latin 3 Hebrew, Rel. Know. 4 Ethics	1 Latin 2 Rel. Know., Mil. Stud. 3 Ethics 4 English
10	1 German 2 French 3 Latin 4 Latin	1 French 2 German 3 English 4 Math. I, Chem.	1 French 2 English 3 Phys., G. & M., H.S. 4 French
11	1 Mathematics 2 Zool or Bot., Math. II 3 Anc. & Mod. Hist. 4 Rel. Know., Mil Stud	1 Trig., Rel. Know. 2 Greek 3 Math. I, Chem 4 Hist. Phil., Psychol.	1 Heb., Ital, Span. 2 Chem., Math. I 3 Economics 4 Anc. & Mod. Hist.
12	1 Science 2 Greek 3 Hist. Phil. 4 Math. II, Zool., Bot.	1 Science 2 History 3 Math. II, Bot., Zool. 4 Greek	2 Phys, G & M. 3 Anc. & Mod. Hist. 4 Hebrew, Phys., G. & M., H. S.
1			
2	1 French 2 †Chemistry 3 †Phys., †G. & M., †H S 4 Economics	1 Greek 2 †Phys, †G. & M. 3 Ital., Span. 4 Ital, Span	1 Greek 2 †Zool, †Bot. 3 French 4 German
3	1 Greek 2 †Chemistry 3 †Phys, †G. & M., †H.S 4 †Psychol.	1 Heb., Ital., Span. 2 †Phys, †G & M 3 Economics 4 †Zool., †Bot.	2 †Zool., †Bot., G. & M. 3 German 4 †Phys., †G. & M., †H.S.
4	2 Philosophy, Psychol. 4 †Psychol.	2 Economics 3 Psychol. 4 †Zool., †Bot.	2 Heb., Ital., Span., 3 Greek 4 †Phys., †H. S.
5			

The third and fourth year hours of instruction in the Sciences are subject to change of which due notice will be given to the students concerned.

PASS COURSE TIME-TABLE

	THURSDAY	FRIDAY	SATURDAY
8			
9	1 English 2 Latin, G. & M. 3 Ethics 4 Rel. Know., Mil. Stud.	1 Latin 2 Greek 3 Rel. Know. 4 English	2 Rel. Know., Mil. Stud. 3 English 4 French
10	1 Greek 2 French 3 English 4 Anc. & Mod. Hist.	1 German 2 Latin 3 French 4 Ethics	1 Latin 2 English 3 Greek, French 4 German
11	1 Heb., Ital., Span. 2 Chem. or Math. I 3 Phys, G & M., H S. 4 Math. II, Zool., Bot.	1 Mathematics 2 French 3 Latin 4 Latin, Math. I., Chem.	1 French 2 Heb., Ital., Span. 3 German 4 Hebrew, Phys., G & M., H.S.
12	1 Anc. History 2 Zool, Bot., Math II 3 Hist. Phil, Zool, Bot, Math. II 4 Ital., Span.	1 Science 2 Phys. 3 Math. I, Chem. 4 Hist. Phil., Psychol.	1 German 3 Hebrew, Mil. Stud.
1			
2	1 German 2 Economics 3 †Chemistry 4 †Chemistry	1 Heb., Ital, Span. 2 German 3 Ital, Span, Heb. 4 Economics	
3	2 Heb., Ital., Span. 3 †Chem. 4 †Chemistry	2 Philosophy, Psychol. 3 †Zool., †Bot., †Psychol.* 4 Greek	
4	2 History 3 Psychol.	2 Psychol. 3 †Zool, †Bot., † Psychol.*	
5			

*An alternate laboratory course may be arranged on another day for students unable to attend this course.

† Laboratory periods.

1. This course comprises elementary tactics, topography, musketry, organization and administration, and in addition to these professional subjects lectures on citizenship, the relations between the various parts of the Empire with regard to defence, trade-routes, coal and fuel stations, naval power, and the distribution of the Empire's armed forces.

2. The professional subjects of course 1 are continued.

In addition to the educative nature of the subjects considered in these two courses, they comprise the work necessary for C O T C. certificate "A" which qualifies for substantative commissions as Lieutenants of Infantry. Candidates completing these and passing the examination conducted by the Militia Department will be recommended for this certificate

3. This course will cover the work required for the higher Certificate and will involve the study of the Science of War, Strategy, and some portion of Military History. Those who complete this course successfully and have had defined military experience will be recommended to the Militia Department for the certificate.

For particulars of the C.O.T.C., in which the practical portion of these courses is done, see page 37.

PRESCRIPTION FOR COURSES

The courses leading to the degree of Bachelor of Arts are

(a) THE PASS COURSE

(b) The following Honour Courses:—

CLASSICS	PSYCHOLOGY
GREEK AND HEBREW	MATHEMATICS
ORIENTAL LANGUAGES	MATHEMATICS AND PHYSICS
ORIENTAL LANGUAGES	PHYSICS
(GK. OPT.)	BIOLOGY
FRENCH GREEK AND LATIN	PHYSIOLOGY AND BIOCHEMISTRY
MODERN LANGUAGES	BIOLOGICAL AND MEDICAL SCIENCES
ENGLISH AND HISTORY	CHEMISTRY AND MINERALOGY
MODERN HISTORY	CHEMISTRY
POLITICAL SCIENCE	GEOLOGY AND MINERALOGY
COMMERCE AND FINANCE	HOUSEHOLD SCIENCE
PHILOSOPHY	HOUSEHOLD ECONOMICS
PHILOSOPHY ENGLISH AND HISTORY	SCIENCE FOR TEACHERS

(c) THE ARTS AND FORESTRY COURSE.

The requirements for each of these courses are detailed in the following schedules, where the numerals refer to the corresponding numbers of the courses on the pages indicated.

PASS COURSE

FIRST YEAR

1. English 1a, 1b, pp. 81, 82	2 hours
2. Latin 1a, p. 75	4 "
3. One of Greek 1a or 1b, p. 73	4 "
Hebrew 1b, p. 78	4 "
German 1a, p. 85	4 "
French 1a, pp. 87, 88	4 "
Italian 1a or 1b, p. 90 or Spanish 1a or 1c, p. 91	3 "
4. One of a second language from 3	4 "
Elementary Science 1, p. 121	3 "
5. Mathematics 1a, 1b, p. 109	2 "
6. One of Greek and Roman History 1, p. 77	1 "
Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "

A student of Chinese birth and education is permitted to substitute Chinese for Latin in the First and Second Years. For such students a special curriculum in Chinese will be prepared.

SECOND YEAR

In selecting the subjects of study in the Second Year the student should have in mind the subjects intended to be taken in the Third and Fourth Years.

1. A subject chosen in the Second Year should be continued through the Third and Fourth Years, foreign languages continued from the First Year, viz , Greek, Latin, Hebrew, German, French, Italian, Spanish, as well as English, History and Philosophy, may be taken in the Second Year without obligation to continue them in the Third and Fourth Years

2. Political Economy, Psychology, Mathematics I, Mathematics II, Physics, Zoology, Botany, Chemistry, Geology and Mineralogy, Military Studies, if taken in the Second Year, must be continued throughout the Course.

3. Ethics, History of Philosophy and Ancient History may be begun in the Third Year, but if chosen must be continued in the Fourth Year.

4. English, Modern History and Religious Knowledge may be taken in the Third and Fourth Years without having been taken in the Second Year

5. A student who proposes to take Household Science in the Third and Fourth Years is required to take Chemistry in the Second Year and Food Chemistry in the Third and Fourth Years.

6. A student who has no credit in Science in the First Year must take in the Second Year either Elementary Science of the First Year or one of the Sciences (including Mathematics I and Mathematics II) beginning in the Second Year. In the latter case the subject chosen must be continued through the Third and Fourth Years.

7. No student may take three foreign languages or three Sciences except by special permission of the Council on the recommendation of his College, but this permission does not carry with it the right to continue the three subjects in the Third and Fourth Years.

8. A student of the Second Year who has not previously taken Hebrew may, with the consent of his College and of the Council of the Faculty of Arts, substitute Hebrew of the First Year for a language of the Second Year, on condition that he substitute Hebrew of the Second and Third Years for a language of the Third and Fourth Years respectively.

9. The choice of subjects made in the Second Year cannot be varied except on joint action of the College and University authorities.

PRESCRIPTION FOR THE SECOND YEAR PASS COURSE

(Five subjects)

1. One of Greek 2a or 2b, p. 73	3 hours
Latin 2a, p 75	3 "
Hebrew 2b, p. 79	3 "
Mathematics I: Mathematics 2a, 2b, p. 110	3 "
Mathematics II: Actuarial Science I, p 113	3 "

SECOND YEAR—*Continued*

Physics 9, pp. 115, 116	4 hours
Zoology 2, p. 121	4 "
Botany 2a, 2b, p. 125	4 "
Chemistry 1, 14, pp. 132, 133	4 "
Geology and Mineralogy: Mineralogy 1, 4, 11, p. 136	4 "
2. One of Greek 2a or 2b, p. 73	3 "
Latin 2a, p. 75	3 "
Hebrew 2b, p. 79	3 "
German 2a, p. 85	3 "
French 2a, p. 88	3 "
Italian 2, p. 90 or Spanish 2a or 2b, p. 91	3 "
3. Three of	
An additional language from 2	3 "
English 2a, 2b, p. 82	2 "
History 2a, 2d, p. 92	2 "
Political Economy 8, p. 96	2 "
Philosophy 2a, p. 102 or †2e, 2f, p. 105	3 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
Not more than two of	
Psychology 2a, p. 108	3 "
Mathematics I: Mathematics 2a, 2b, p. 110	3 "
Mathematics II: Actuarial Science 1, p. 113	3 "
Physics 9, pp. 115, 116	4 "
Zoology 2, p. 121	4 "
Botany 2a, 2b, p. 125	4 "
Chemistry 1, 14, pp. 132, 133	4 "
Geology and Mineralogy: Mineralogy 1, 4, 11, p. 136	4 "
Elementary Science 1, p. 121	3 "

THIRD AND FOURTH YEARS

The plan upon which the work of the Third and Fourth Years is arranged is indicated so that students of the Second Year may make their choice of subjects of that year in such a way as to be able to enter the particular group desired in the higher years with the least possible adjustment.

The subjects of the Third and Fourth Years are arranged as follows:

(a) Greek, Latin, Hebrew	3 hours
(b) German, French, Italian or Spanish	3 "
(c) English	3 "
(d) Religious Knowledge or Military Studies	3 "

†*St. Michael's College.*

- (e) Ancient History *or* Modern History, Ethics, History of Philosophy, Political Economy, Psychology 3 hours
 (f) Mathematics (3 hours), Physics, Zoology, Botany, Chemistry, Geology and Mineralogy 4 "
 (g) Household Science 4 "

Notes—(a) Five subjects are to be chosen, not more than two from any one group.

(b) Not more than three subjects may be chosen from groups (a), (b), (c) and Religious Knowledge 3c, 4c, of (d).

(c) A student of the Third Year who has not previously taken Hebrew may, with the consent of his College and of the Council of the Faculty of Arts, substitute Hebrew of the First Year for a language of the Third Year, on condition that he substitute Hebrew of the Second Year for a language of the Fourth Year.

Based upon the arrangement of subjects the following groups are announced in this calendar as affording opportunities for wide choice of subjects and for the aptitudes of individual students.

A student in the Pass Course who is entitled to register in the Third Year is required to submit to the authorities of his College, his selection of subjects for each of the Third and Fourth Years. Registration cannot be completed until the College has formally approved of his selection.

Group I

1. Greek *or* Latin *or* Hebrew
2. A second language from 1
3. English *or* Religious Knowledge
4. Ancient History *or* Modern History *or* Political Economy *or* Ethics *or* History of Philosophy *or* Psychology *or* Physics *or* Zoology *or* Botany *or* Chemistry *or* Geology and Mineralogy *or* Religious Knowledge courses *b*, *d*, *e*, *f* (if not already chosen).
5. A second subject from 4.

Group II

1. Greek *or* Latin
2. Ancient History
3. Political Economy *or* Ethics *or* History of Philosophy *or* Psychology *or* Religious Knowledge
4. English *or* a second foreign language *or* Religious Knowledge
5. An additional subject from 3 *or* 4 *or* Physics *or* Zoology *or* Botany *or* Chemistry *or* Geology and Mineralogy.

Group III

1. Hebrew
2. Ethics
3. Ancient History *or* Modern History *or* Political Economy *or* History of Philosophy *or* Psychology *or* Religious Knowledge
4. English *or* a second foreign language *or* Religious Knowledge
5. An additional subject from 3 *or* 4 *or* Physics *or* Zoology *or* Botany *or* Chemistry *or* Geology and Mineralogy.

Group IV

1. Latin
2. French
3. English
4. Modern History *or* Ethics *or* History of Philosophy *or* Psychology *or* Religious Knowledge
5. A second subject from 4

Group V

1. French *or* German *or* Italian *or* Spanish
2. A second language from 1
3. English *or* Modern History *or* History of Philosophy
4. A second subject from 3
5. Political Economy *or* Physics *or* Zoology *or* Botany *or* Chemistry *or* Geology and Mineralogy *or* Religious Knowledge.

Group VI

1. English
2. Latin *or* French *or* History of Philosophy
3. A second subject from 2
4. A third subject from 2 *or* Modern History
5. Religious Knowledge *or* any subject possible under the timetable and consistent with the arrangement of subjects as found in the paragraph under the heading Third and Fourth Years.

Group VII

1. Modern History
2. English
3. Latin *or* French
4. Zoology *or* Botany *or* Geology and Mineralogy
5. History of Philosophy *or* Political Economy *or* Religious Knowledge.

Group VIII

1. Modern History
2. Ethics *or* History of Philosophy *or* Psychology
3. Greek *or* Latin *or* Hebrew
4. French *or* German
5. English *or* Religious Knowledge.

Group IX

1. Ethics *or* History of Philosophy
2. Political Economy
3. Greek *or* Latin *or* Hebrew *or* French *or* German *or* Italian *or* Spanish
4. English *or* Physics *or* Zoology *or* Botany *or* Chemistry *or* Geology and Mineralogy
5. Religious Knowledge *or* any subject possible under the timetable and consistent with the arrangement of subjects as found in the paragraph under the heading Third or Fourth Years.

Group X

1. Mathematics I
2. Mathematics II
3. German *or* French *or* Italian *or* Spanish
4. Ethics *or* History of Philosophy *or* Psychology *or* Political Economy
5. English *or* Modern History *or* Religious Knowledge.

Group XI

1. Physics *or* Zoology *or* Botany *or* Chemistry *or* Geology and Mineralogy
2. A second Science from 1 *or* Mathematics I *or* Mathematics II
3. English
4. French
5. Religious Knowledge *or* any subject possible under the timetable and consistent with the arrangement of subjects as found in the paragraph under the heading Third and Fourth Years.

Group XII

1. Household Science
2. Chemistry
3. English *or* Modern History
4. Ethics *or* Economics
5. Religious Knowledge *or* any subject possible under the timetable and consistent with the arrangement of subjects as found in the paragraph under the heading Third and Fourth Years.

PRESCRIPTION FOR THE THIRD YEAR PASS COURSE

Greek 3a, p. 73	3 hours
Latin 3a, p. 75	3 "
Hebrew 3b, p. 79	3 "
English 3a, 3b, p. 82	3 "
German 3a, p. 85	3 "
French 3a, p. 88	3 "
Italian 3a, 3b, p. 90	3 "
Spanish 3a <i>or</i> 3d, p. 91	3 "
Greek and Roman History 3a, p. 77	3 "
Modern History 3a, 3d, p. 93	3 "
Political Economy 14, p. 97	3 "
Philosophy 3a, pp. 102, 103 <i>or</i> †3i, p. 105	3 "
Philosophy 3b, p. 103 <i>or</i> †3f, 3g, 3h, p. 105	3 "
Psychology 3a, 3f, pp. 108, 109	3 "
Mathematics I: Mathematics 3a, p. 110	3 "
Mathematics II: Mechanics 10, p. 113	3 "
Physics 10, p. 116	4 "
Zoology 3, p. 121	4 "
Botany 3, p. 125	4 "
Chemistry 3, 18, pp. 132, 133	4 "
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THIRD YEAR—*Continued*

Chemistry 3, p. 132 and Food Chemistry 5, p. 130	4 hours
Geology and Mineralogy: Geology 3, p. 134, and Geology 4, p. 134 or Mineralogy 6, p. 136	4 "
Household Science 3a, p. 137	4 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 2, p. 141	3 "

PRESCRIPTION FOR THE FOURTH YEAR PASS COURSE

Greek 4a, p. 73	3 hours
Latin 4a, p. 75	3 "
Hebrew 4b, p. 79	3 "
English 4a, 4b, p. 82	3 "
German 4a, pp. 85, 86	3 "
French 4a, p. 88	3 "
Italian 4a, p. 91	3 "
Spanish 4a, pp. 91, 92	3 "
Greek and Roman History 4a, p. 77	3 "
Modern History 4a, 4c, p. 93	3 "
Political Economy 22, p. 99	3 "
Philosophy 4a, p. 103 or †4j, p. 105	3 "
Philosophy 4b, p. 103 or †4g, 4h, 4i, p. 105	3 "
Psychology 4a, p. 108	3 "
Mathematics I: Mathematics 4a, 4b, p. 110	3 "
Mathematics II: Astronomy 1, 2, pp. 113, 114	3 "
Physics 11, p. 116	4 "
Zoology 4, p. 121	4 "
Botany 4, p. 125	4 "
Chemistry 2, 26, pp. 132, 133	4 "
Food Chemistry 6, p. 130	4 "
Geology and Mineralogy: Geology 13, 5 or 15 and 16, pp. 134, 135	4 "
Household Science 4a, p. 137	4 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "

CLASSICS

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Classics, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Greek, Latin, Mathematics (Algebra and Geometry) as well as in at least one of French, German, Physics, Biology, preferably French or German.

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A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
One of German 1a, p. 85	4 "
French 1a, pp. 87, 88	4 "
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
(Candidates who are exempt from Science or German as a Pass subject of the First Year may offer this subject in lieu of Religious Knowledge.)	
*Greek 1c, p. 73	5 hours
*Latin 1b, p. 76	4½"
*Greek and Roman History 1, p. 77	1 "

SECOND YEAR

One of English 2a, 2b, p. 82	2 hours
German 2a, p. 85	3 "
French 2a, p. 88	3 "
One of English 2a, 2b, p. 82 (if not already chosen)	2 "
History 2a, 2d, p. 92	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Greek 2c, p. 74	5 "
*Latin 2b, p. 76	5½"
*Greek and Roman History 2a, 2b, pp. 77, 78	2 "

THIRD YEAR

One of Greek 3h, p. 74 and Latin 3e, p. 76	1 hour
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 hours
Military Studies 2, p. 141	3 "
*Greek 3b, p. 74	9 "
*Latin 3b, p. 76	6 "
*Greek and Roman History 3b, 3c, p. 78	1 "

FOURTH YEAR

One of Greek 4h, p. 75 and Latin 4e, p. 77	1 hour
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 hours
Military Studies 3, p. 141	3 "
*Greek 4b, p. 74	7 "
*Latin 4b, p. 77	5 "
*Greek and Roman History 4b, 4c, 4d, p. 78	2 "

* *Honours.*

GREEK AND HEBREW

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Greek and Hebrew, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Greek, Latin, Mathematics (Algebra and Geometry) as well as in at least one of English, French, German

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Greek 1e, p. 73	5 "
*Greek and Roman History 1, p. 77	1 "
*Oriental Languages 1b, p. 78	4 "

SECOND YEAR

One of English 2a, 2b, p. 82	2 hours
Philosophy 2a, p. 102 or †2e, 2f, p. 105	3 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
One of Latin 2a, p. 75	3 "
German 2a, p. 85	3 "
French 2a, p. 88	3 "
*Greek 2e, 2g, p. 74	3½ "
*Greek and Roman History 2a, p. 77	½ "
*Oriental Languages 2c, 2d, 2g, pp. 79, 80	6 "

THIRD YEAR

Greek and Roman History 3a, p. 77	3 hours
One of English 3a, 3b, p. 82	3 "
Philosophy 3a, pp. 102, 103 or †3i, p. 105	3 "
Philosophy 3b, p. 103 or †3f, 3g, 3h, p. 105	3 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 2, p. 141	3 "
*Greek 3e, 3g, p. 74	5 "
*Oriental Languages 3c, 3d, 3g, p. 80	5 "

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* *Honours.*

FOURTH YEAR

Greek and Roman History 4a, p. 77	3	hours
One of English 4a, 4b, p. 82	3	"
Philosophy 4a, p. 103 or †4j, p. 105	3	"
Philosophy 4b, p. 103 or †4g, 4h, 4i, p. 105	3	"
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3	"
Military Studies 3, p. 141	3	"
*Greek 4e, 4g, p. 75	5	"
*Oriental Languages 4c, 4d, 4g, p. 80	4	"

ORIENTAL LANGUAGES

ENTRANCE CONDITIONS

Every student applying to enter the Honour Course in Oriental Languages at the beginning of the Second Year is required to obtain at the examination of the First Year, at least Grade B Standing in the Pass Course with not less than 66 per cent. in Hebrew. It is recommended that the optional language be either Greek or German.

It is possible however to transfer from any other Honour Course at the beginning of the Second Year, provided the candidate has obtained not less than 66 per cent. in Hebrew.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2	hours
Latin 1a, p. 75	4	"
One of Greek 1a or 1b, p. 73	4	"
German 1a, p. 85	4	"
French 1a, pp. 87, 88	4	"
Mathematics 1a, 1b, p. 109	2	"
One of Mathematics 1c, p. 109	1	"
Greek and Roman History 1, p. 77	1	"
§Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1	"
Oriental Languages 1b, p. 78	4	"

§Students in this Course, who have not taken Greek previously, and who do not take Greek 1b, 2b, etc., are advised to take Religious Knowledge 1c, and the similar Courses in the subsequent years.

SECOND YEAR

English 2a, 2b, p. 82	2	hours
One of Greek 2a or 2b, p. 73	3	"
Latin 2a, p. 75	3	"
German 2a, p. 85	3	"
French 2a, p. 88	3	"

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SECOND YEAR—*Continued*

One of History 2a, 2d, p. 92	2 hours
Philosophy 2a, p. 102 <i>or</i> †2e, 2f, p. 105	3 "
Religious Knowledge 2a <i>or</i> 2b <i>or</i> 2c <i>or</i> 2d <i>or</i> 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Oriental Languages 2c, 2d, 2e, 2f, 2g, pp. 79, 80	10 "

THIRD YEAR

Two of English 3a, 3b, p. 82	3 hours
Greek and Roman History 3a, p. 77	3 "
History, 3a, 3d, p. 93	3 "
Philosophy 3a, pp. 102, 103 <i>or</i> †3i, p. 105; <i>or</i>	3 "
Philosophy 3b, p. 103 <i>or</i> †3f, 3g, 3h, p. 105	3 "
Religious Knowledge 3a <i>or</i> 3b <i>or</i> 3c <i>or</i> 3d <i>or</i> 3e <i>or</i> 3f, p. 140	3 "
Military Studies 2, p. 141	3 "
One of Greek 3a, p. 73	3 "
Latin 3a, p. 75	3 "
German 3a, p. 85	3 "
French 3a, p. 88	3 "
*Oriental Languages 3c, 3d, 3e, 3f, 3g, p. 80	10 "
*Oriental Languages, one of 3h, 3i, 3j, p. 80	2 "

FOURTH YEAR

Two of English 4a, 4b, p. 82	3 hours
Greek and Roman History 4a, p. 77	3 "
History 4a, 4c, p. 93	3 "
Philosophy 4a, p. 103 <i>or</i> †4j, p. 105; <i>or</i>	3 "
Philosophy 4b, p. 103 <i>or</i> †4g, 4h, 4i, p. 105	3 "
Religious Knowledge 4a <i>or</i> 4b <i>or</i> 4c <i>or</i> 4d <i>or</i> 4e <i>or</i> 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
One of Greek 4a, p. 73	3 "
Latin 4a, p. 75	3 "
German 4a, pp. 85, 86	3 "
French 4a, p. 88	3 "
*Oriental Languages 4c, 4d, 4e, 4f, 4g, p. 80	8 "
‡*Oriental Languages, one of 4h, 4i, 4j, p. 80	2 "
‡Students must continue the course selected in the Third Year.	

Every candidate in this course shall, during the Fourth Year, present a dissertation on some subject connected with Oriental Languages or Literature, such subject to be previously approved by his instructors in the department. The essay will, on or before the 1st of April in each year, be laid before the instructors in Oriental Languages in University College, Victoria College and Trinity College, who will examine it and assign to it marks according to their judgment of its merit. Such marks

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will be reported to the Registrar and be taken into account by the examiners in determining the standing of the candidate at the examination of the Fourth Year.

ORIENTAL LANGUAGES—GREEK OPTION

ENTRANCE CONDITIONS

Every student applying to enter the Honour Course in Oriental Languages with Greek Option, at the beginning of the Second Year, is required to obtain at the examination of the First Year, at least Grade B Standing in the Pass Course with not less than 66% in Greek and Hebrew.

Candidates may begin the study of Greek in the First Year under the beginner's course Greek 1b, 2b.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
Latin 1a, p. 75	4 "
Mathematics 1a, 1b, p. 109	2 "
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
Greek and Roman History 1, p. 77	1 "
Greek 1a or 1b, p. 73	4 "
Oriental Languages 1b, p. 78	4 "

SECOND YEAR

English 2a, 2b, p. 82	2 hours
Latin 2a, p. 75	3 "
One of History 2a, 2d, p. 92	2 "
Philosophy 2a, p. 102 or †2e, 2f, p. 105	3 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
§Greek 2a or 2b, 2g, pp. 73, 74	4 "
*Oriental Languages 2c, 2d, 2g, pp. 79, 80	6 "
§Not less than 66% must be obtained in Greek.	

THIRD YEAR

Greek and Roman History 3a, p. 77	3 hours
One of English 3a, 3b, p. 82	3 "
Philosophy 3a, pp. 102, 103 or †3i, p. 105	3 "
Philosophy 3b, p. 103 or †3f, 3g, 3h, p. 105	3 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 2, p. 141	3 "
*Greek 3e, 3g, p. 74	5 "
*Oriental Languages 3c, 3d, 3g, p. 80	5 "

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FOURTH YEAR

Greek and Roman History 4a, p. 77	3 hours
One of English 4a, 4b, p. 82	3 "
Philosophy 4a, p. 103 or †4j, p. 105	3 "
Philosophy 4b, p. 103 or †4g, 4h, 4i, p. 105	3 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
*Greek 4e, 4g, p. 75	5 "
*Oriental Languages 4c, 4d, 4g, p. 80	4 "

FRENCH GREEK AND LATIN

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in French Greek and Latin, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin, Mathematics (Algebra and Geometry), and two of Greek, English, French.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

In each year of the Course, French, Greek and Latin are to be taken, two as honour subjects, the third as a pass subject. Candidates taking Greek as their pass subject, may begin the study of Greek in their First Year under the beginner's course, Greek 1b, 2b.

FIRST YEAR

One of Mathematics 1c, p. 109	1 hour
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
(Candidates who are exempt from Science or German as a Pass subject of the First Year may offer this subject in lieu of Religious Knowledge.)	
One of Greek 1a or 1b, p. 73	4 hours
Latin 1a, p. 75	4 "
French 1a, pp. 87, 88	4 "
Two of *Greek 1d, p. 73	5 "
*Latin 1b, p. 76	5 "
*French 1f, 1g, p. 89	5 "
*English 1a, 1c (ii), p. 83	2 "
*Greek and Roman History 1, p. 77	1 "

SECOND YEAR

One of English 2a, 2b, p. 82	2 hours
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "

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SECOND YEAR—*Continued*

One of Greek 2a or 2b, p. 73	3 hours
Latin 2a, p. 75	3 "
French 2a, p. 88	3 "
Two of *Greek 2f, p. 74	4 "
*Latin 2d, p. 76	4½ "
*French 2f, 2g, 2h, p. 89	4½ "
One of *Greek and Roman History 2a, p. 77	1 "
*Phonetics, p. 92	1 "

THIRD YEAR

One of English 3b, p. 82	3 hours
French 3g, p. 89	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 2, p. 141	3 "
One of Greek 3a, p. 73	3 "
Latin 3a, p. 75	3 "
French 3a, p. 88	3 "
Two of *Greek 3f, p. 74	5 "
*Latin 3f, p. 77	5 "
*French 3c, 3d, 3e, 3f, p. 89	5 "

FOURTH YEAR

One of English 4b, p. 82	3 hours
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
One of Greek 4a, p. 73	3 "
Latin 4a, p. 75	3 "
French 4a, p. 88	3 "
Two of *Greek 4f, p. 75	6 "
*Latin, 4d, p. 77	5 "
*French 4c, 4d, 4f, 4g, p. 90	5 "

MODERN LANGUAGES

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Modern Languages, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin, French, Mathematics (Algebra and Geometry), and in one of English, German, History.

**Honours.*

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

In determining the standing of candidates in English, French, German, Italian and Spanish, examiners will take into account the report of the instructors in the University and Colleges in these subjects.

FIRST YEAR

One of Mathematics 1c, p. 109	1 hour
Elementary Science 1, p. 121	3 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
Three of *English 1a, 1c, p. 83	3 "
*German 1c, 1d, 1e, p. 86	4 "
*French 1f, 1g, p. 89	4½ "
*Italian 1a or 1b, p. 90	3 "
*Spanish 1a or 1c, p. 91	3 "

Note—Not more than one new language may be begun in this First Year.

SECOND YEAR

One of Philosophy 2a, p. 102 or †2e, 2f, p. 105	3 hours
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
Three of *English 2a, 2b, 2c, p. 83	4 "
*German 2c, 2d, 2e, p. 86	4 "
*French 2f, 2g, 2h, p. 89	4 "
*Italian 2, p. 90	3 "
*Spanish 2a or 2b, p. 91	3 "
*Phonetics p. 92	1 "

THIRD YEAR

§One of German 3e, p. 86	2 hours
French 3g, p. 89	2 "
Italian 3d, p. 90	2 "
Spanish 3c, p. 91	2 "
Philosophy 3b, p. 103 or †3f, 3g, 3h, p. 105	3 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 2, p. 141	3 "
Two of *English 3a, 3b, 3c, pp. 83, 84	5 "
*German 3b, 3c, 3d, p. 86	5 "
*French 3c, 3d, 3e, 3f, p. 89	5 "
*Italian 3a, 3b, 3c, p. 90	5 "
*Spanish 3a, 3b, or 3d, p. 91	5 "

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**Honours.*

FOURTH YEAR

§One of German 4f, p. 86	2 hours
French 4h, p. 90	2 "
Italian 4c, p. 91	2 "
Spanish 4c, p. 92	2 "
Philosophy 4b, p. 103 or †4g, 4h, 4i, p. 105	3 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
Two of *English 4a, 4c, 4b or 4e, pp. 84, 85	5 "
*German 4b, 4c, 4d, 4e, p. 86	5 "
*French 4c, 4d, 4e, 4f, 4g, p. 90	5 "
*Italian 4a, 4b, p. 91	5 "
*Spanish 4a, 4b, pp. 91, 92	5 "

§Students in the *Third Year* selecting German 3e or French 3f or Italian 3d or Spanish 3c, and students in the *Fourth Year* selecting German 4f or French 4g or Italian 4c or Spanish 4c, must choose one of the languages in which they are taking honours.

ENGLISH AND HISTORY

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour course in English and History, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin, Mathematics (Algebra and Geometry), and in any two of Greek, English, French, German.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

One of Mathematics 1c, p. 109	1 hour
Elementary Science 1, p. 121	3 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "

(Candidates who have qualified for entrance into this course by obtaining Honour Matriculation standing in three foreign languages may offer one of these languages in lieu of Religious Knowledge.)

*English 1a, 1c, p. 83	3 hours
*History 1a, 1c, p. 92	1 "

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FIRST YEAR—*Continued*

*Greek and Roman History 1, p. 77	1 hour
Two of *Greek 1d, p. 73	4 "
*Latin 1c, p. 76	4 "
*German 1c, 1d, 1e, p. 86	4 "
*French 1f, 1g, p. 89	4 "

SECOND YEAR

One of Political Economy 7, p. 96	1 hour
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*English 2a, 2b, 2c, p. 83	4 "
*History 2a, 2b, p. 92	3 "
Two of *Greek 2d, p. 74	3 "
*Latin 2c, p. 76	3 "
*German 2c, 2e, p. 86	3 "
*French 2f, 2g, p. 89	3 "

THIRD YEAR

One of Philosophy 3b, p. 103 or †3f, 3g, 3h, p. 105	3 hours
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies, 2, p. 141	3 "
*English 3a, 3b, 3d, pp. 83, 84	5 "
*History 3b, p. 93	1 "
One of *Greek 3c, p. 74	3 "
*Latin 3c, p. 76	2 "
*German 3b, p. 86	3 "
*French 3c, p. 89	2 "
One of *English 3c, p. 84	2 "
*History 3a, p. 93	2 "
*Greek 3d, p. 74 and *History 6, p. 93	2 "
*Latin 3d, p. 76 and *History 6, p. 93	2 "

FOURTH YEAR

One of Philosophy 4b, p. 103 or †4g, 4h, 4i, p. 105	3 hours
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
*Greek 4c, p. 74 (<i>Aristotle's Poetics</i> , in English)	1 "
*English 4a, 4b, 4d, 4e, pp. 84, 85	7 "
*History 4b, p. 93	1 "
One of *English 4c, p. 84	2 "
*History 4a, p. 93	2 "
*Greek 4d, p. 74 and *History 6, p. 93	2 "
*Latin 4c, p. 77 and *History 6, p. 93	2 "

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**Honours.*

MODERN HISTORY

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Modern History, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra and Geometry), and in History *or* English, and in French *or* German.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Section 46-48, pp. 19, 20.

FIRST YEAR

Elementary Science 1, p. 121	3 hours
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a <i>or</i> 1b <i>or</i> 1c <i>or</i> 1d, p. 139	1 "
*Greek and Roman History 1, p. 77	1 "
*English 1a, 1c (ii), p. 83	2 "
*French 1f, p. 89 (see Note)	4 "
*History 1a, 1b, 1c, 1d, 1e, p. 92	4 "

A student who offers Honours in German at Matriculation may by special arrangement continue the study of German (instead of French) in the first two years of the Course.

SECOND YEAR

One of History 2e, p. 92	1 hour
Religious Knowledge 2a <i>or</i> 2b <i>or</i> 2c <i>or</i> 2d <i>or</i> 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*English 2a, 2b, p. 83	2 "
*French 2a, p. 88	3 "
*History 2a, 2b, 2c, p. 92	4 "
*Political Economy 1b, 5, pp. 94, 95	2 "

THIRD YEAR

One of English 3b, p. 82	3 hours
Religious Knowledge 3a <i>or</i> 3b <i>or</i> 3c <i>or</i> 3d <i>or</i> 3e <i>or</i> 3f, p. 140	3 "
Military Studies 2, p. 141	3 "
*English 3d, p. 84	2 "
*History 3a, 3b, 3c, 5, 6, p. 93	6 "
*Political Economy 1b, 9a, pp. 94, 96	3 "

*Honours.

FOURTH YEAR

One of English 4b, p. 82	3 hours
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
*English 4d, p. 84	2 "
*History 4a, 4b, 4c, 5, 6, p. 93	7 "
*Political Economy 1b, 19, pp. 94, 99	2 "

POLITICAL SCIENCE

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Political Science, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin, Mathematics (Algebra and Geometry) and in History or English and in French or German.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

A candidate who is awarded Grade B Standing, *i.e.*, an average of sixty per cent, in the Pass Course of the First Year may in the Second Year proceed in the Honour Course in Political Science.

FIRST YEAR—COURSE A

1. English 1a, 1b, pp. 81, 82	2 hours
2. Latin 1a, p. 75	4 "
3. One of Greek 1a, p. 73	4 "
Hebrew 1b, p. 78	4 "
German 1a, p. 85	4 "
French 1a, pp. 87, 88	4 "
4. One of a second language from 3	4 "
Elementary Science 1, p. 121	3 "
5. Mathematics 1a, 1b, p. 109	2 "
6. One of Greek and Roman History 1, p. 77	1 "
Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "

FIRST YEAR—COURSE B

One of Greek 1a, p. 73	4 hours
German 1a, p. 85	4 "
French 1a, pp. 87, 88	4 "
One of Greek and Roman History 1, p. 77	1 "
Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "

*Honours.

FIRST YEAR—COURSE B—*Continued*

One of *Greek 1d, p. 73	4 hours
*Latin 1c, p. 76	4 "
*German 1c, 1d, 1e, p. 86	4 "
*French 1f, p. 89	4 "
*English 1a, 1c (u), p. 83	2 "
*History 1a, 1c, p. 92	2 "
*Political Economy 2, p. 95	½ "

Honour standing in Greek or Latin or German or French will relieve a candidate of the corresponding language of the Pass Course subjects

SECOND YEAR

English 2a, 2b, p. 82	2 hours
One of Philosophy 2a, p. 102 or †2e, 2f, p. 105	3 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Greek and Roman History 2b, p. 77	1 "
*History 2a, 2c, p. 92	3 "
*Political Economy 1a, 1b, 5, 6, pp. 94, 95	4 "
*Actuarial Science 1, p. 113	1 "

THIRD YEAR

English 3a, 3b, p. 82	3 hours
One of Philosophy 3a, pp. 102, 103 or †4j, p. 105	3 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
World History 1 or 2, p. 140	2 "
Military Studies 2, p. 141	3 "
*History 3a, 3c, p. 93	3 "
*Political Economy 1a, 1b, 9a, 10, pp. 94, 96	4 "
*Law 1, 5, 6, pp. 100, 101	2 "
One of *Political Economy 11, 12, pp. 96, 97 or 13 p. 97	2 "
*Law 2, p. 100	2 "

FOURTH YEAR

English 4a, 4b, p. 82	3 hours
One of Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
World History 1 or 2, p. 140	2 "
Military Studies 3, p. 141	3 "
*History 4a, 4c, p. 93	3 "
*Political Economy 1a, 1b, 15, pp. 94, 97, 98	2 "
*Law 4, 7, pp. 100-102	2 "
Two of *Political Economy 16, p. 98; 17, p. 98; 18, p. 98; 19, p. 99; 20, p. 99; *Law 3, p. 100	4 "

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**Honours.*

COMMERCE AND FINANCE

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Commerce and Finance, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin, English, Mathematics (Algebra, Geometry, Trigonometry) and in either French or German.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

One of German 1a, p. 85	4 hours
French 1a, pp 87, 88	4 "
One of Greek and Roman History 1, p. 77	1 "
Mathematics 1c, p 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*English 1a, 1c (u), p 83	2 "
*History 1a, p 92	1 "
*Political Economy 2, p. 95	1 "
*Actuarial Science 1, 3, p. 113	2 "

SECOND YEAR

English 2a, 2b, p. 82	2 hours
Two of Latin 2a, p. 75	3 "
German 2a, p. 85	3 "
French 2a, p 88	3 "
Mathematics 2c, p. 110	2 "
Physics 9, pp 115, 116	4 "
Chemistry 1, 14, pp 132, 133	4 "
Geology and Mineralogy. Mineralogy 1, 4, 11, p. 136	4 "
One of History 2a, p. 92	1 "
Mechanics 9, p. 113	$\frac{1}{2}$ "
Geology and Palaeontology 1, p. 134	1 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Political Economy 1a, 1b, 5, 6, pp. 94-96	4 "
*Actuarial Science 2, 4, 5, 6, p. 113	4 "

One of the languages of the First Year must be continued in the Second Year

*Honours

THIRD YEAR

English 3a, 3b, p. 82	3 hours
One of Latin 3a, p. 75	3 "
German 3a, p. 85	3 "
French 3a, p. 88	3 "
Physics 10, p. 116	4 "
Chemistry 3, 15, pp. 132, 133	6 "
Geology and Mineralogy: Geology 3, p. 134, <i>and</i> Geology 4, p. 134 <i>or</i> Mineralogy 6, p. 136	4 "
One of History 3a, 3d, p. 93	3 "
Philosophy 3a, pp. 102, 103 <i>or</i> †3i, p. 105	3 "
Religious Knowledge 3a <i>or</i> 3b <i>or</i> 3c <i>or</i> 3d <i>or</i> 3e <i>or</i> 3f, p. 140	3 "
World History 1 <i>or</i> 2, p. 140	2 "
Military Studies 2, p. 141	3 "
*Political Economy 1a, 1b, 9a, 10, pp. 94-96	4 "
One of *Political Economy, 11, 12, pp. 96, 97 <i>or</i> 13, p. 97	2 "
*Actuarial Science 7, 8, p. 113	2 "

FOURTH YEAR

English 4a, 4b, p. 82	3 hours
One of Latin 4a, p. 75	3 "
German 4a, pp. 85, 86	3 "
French 4a, p. 88	3 "
Physics 11, p. 116	4 "
Chemistry 7, 8, 25, pp. 132, 133	6 "
Geology and Mineralogy: Geology 13, 5 <i>or</i> 15 and 16, pp. 134, 135	4 "
One of History 4a, 4c, p. 93	3 "
Religious Knowledge 4a <i>or</i> 4b <i>or</i> 4c <i>or</i> 4d <i>or</i> 4e <i>or</i> 4f, p. 140	3 "
World History 1 <i>or</i> 2, p. 140	2 "
Military Studies 3, p. 141	3 "
*Political Economy 1a, 1b, 15, pp. 94, 97, 98	2 "
*Law 8, 9, p. 102	1 "
Two of *Political Economy 16, p. 98; 17, p. 98; 18, p. 98; 19, p. 99; 20, p. 99; *Actuarial Science 9, p. 113	4 "

PHILOSOPHY

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Philosophy, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin, English, Mathematics (Algebra and Geometry) and in one of History, Greek, French, German, Physics.

A student who, on admission to this course, has not fulfilled all the entrance requirements must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20

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**Honours.*

A candidate who obtains an average of 60% in the Pass Course or in any of the Honour courses at the examination of the First Year may in the Second Year proceed in the Honour Course in Philosophy.

FIRST YEAR—COURSE A

1. English 1a, 1b, pp. 81, 82	2 hours
2. Latin 1a, p. 75	4 "
3. One of Greek 1a or 1b, p. 73	4 "
Hebrew 1b, p. 78	4 "
German 1a, p. 85	4 "
French 1a, pp. 87, 88	4 "
Italian 1a or 1b, p. 90 or Spanish 1a or 1c, p. 91	3 "
4. One of a second language from 3	4 "
Elementary Science 1, p. 121	3 "
5. Mathematics 1a, 1b, p. 109	2 "
6. One of Greek and Roman History 1, p. 77	1 "
Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "

FIRST YEAR—COURSE B

Elementary Science 1, p. 121	3 hours
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
One of *Greek 1c, p. 73	5 "
*Latin 1b, p. 76	4½ "
*Hebrew 1b, p. 78	4 "
*German 1c, 1d, 1e, p. 86	4 "
*French 1f, p. 89	4 "
*Greek and Roman History 1, p. 77	1 "
*English 1a, 1c (ii), p. 83	2 "
*Philosophy 1a, p. 103 or †1b, p. 106	2 "

SECOND YEAR

English 2a, 2b, p. 82	2 hours
One of Greek 2a or 2b, p. 73	3 "
Hebrew 2b, p. 79	3 "
History 2a, p. 92	2 "
Foreign Philosophical Texts	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Philosophy 2b, 2c, 2d, pp. 103, 104 or †2g, 2h, 2i, 2j, 2l, 2m, p. 106	5 "
*Psychology 2c, p. 108 or †*Philosophy 2k, p. 106	3 "

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**Honours.*

THIRD YEAR

One of English 3a, 3b, p. 82	3 hours
Greek 3a, p. 73	3 "
Hebrew 3b, p. 79	3 "
Foreign Philosophical Texts	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 2, p. 141	3 "
Political Economy 9b, p. 96	2 "
*Philosophy 3c, 3d, 3e, p. 104 and *Psychology 3b, p. 108; or	9 "
*†Philosophy 3j, 3k, 3l, 3m, 3n, 3o, 3p, pp. 106, 107 and	10 "
*†Psychology 1, p. 107	1 "

FOURTH YEAR

One of English 4a, 4b, p. 82	3 hours
Greek 4a, p. 73	3 "
Hebrew 4b, p. 79	3 "
Foreign Philosophical Texts	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
*Philosophy 4c, 4d, 4e, 4f, p. 104 and *Psychology 4b, p. 108; or	11 "
*†Philosophy 4l, 4m, 4n, 4o, 4p, 4q, 4r, 4s, p. 107	11 "

PHILOSOPHY ENGLISH AND HISTORY

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Philosophy English and History, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra and Geometry); in one of History, English, Physics; and in one of Greek, French, German.

A student who, on admission to this course, has not fulfilled all the entrance requirements, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

Elementary Science 1, p. 121	3 hours
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
One of *Greek 1f, p. 73	4 "
*Latin 1c, p. 76	4 "
*German 1c, 1d, 1e, p. 86	4 "
*French 1f, p. 89	4 "
*Greek and Roman History 1, p. 77	1 "

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**Honours.*

FIRST YEAR—*Continued*

*English 1a, 1c, p. 83	3 hours
*History 1a, 1c, p. 92	1 "
*Philosophy 1a, p. 103 or †1b, p. 106	2 "

SECOND YEAR

Political Economy 7, p. 96	1 hour
One of Selected Texts in History and Philosophy	
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*English 2a, 2b, 2c, p. 83	4 "
*History 2a, 2b, p. 92	3 "
*Philosophy 2c, 2d, p. 104 or †2g, 2h, 2i, p. 106	3 "
*Psychology 2c, p. 108 or *†Philosophy 2k, p. 106	3 "

THIRD YEAR

One of Selected Texts in History and Philosophy	
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 hours
Military Studies 2, p. 141	3 "
*English 3b, 3d, pp. 83, 84	5 "
*History 3a, 3b, p. 93	3 "
*Philosophy 3c, 3d, 3e, p. 104 or †3j, 3k, 3n, 3p, pp. 106, 107	6 "

FOURTH YEAR

One of Selected Texts in History and Philosophy	
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 hours
Military Studies 3, p. 141	3 "
Political Economy 19, p. 99	2 "
*English 4b, 4d, p. 84	5 "
*History 4a, 4b, p. 93	3 "
*Philosophy 4c, 4e, 4f, p. 104 or †4l, 4m, 4n, 4q, 4r, p. 107	6 "

PSYCHOLOGY

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Psychology, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra, Geometry and Trigonometry) as well as in either German or French, and in at least one of Physics, Biology and Chemistry.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

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**Honours.*

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
German 1b, p. 85	2 "
French 1b, p. 88	2 "
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Physics 1, 2, 18, pp. 115, 117	6½ "
*Zoology 5, 6, p. 121	3¼ "
*Botany 5, 6, pp. 125, 126	3¼ "
*Chemistry 1, 13, pp. 132, 133	6½ "
*Geology and Palaeontology 1, p. 134	1 "

SECOND YEAR

English 2a, 2b, p. 82	2 hours
One of German 2b, p. 85	2 "
French 2b, p. 88	2 "
One of Political Economy 7, p. 96	1 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Philosophy 2c, p. 104	1 "
*Psychology 2c, 2f, pp. 108, 109	4 "
*Mathematics 1j, 1k, p. 112	2 "
*Physics 3, 4, 5, 6 part, p. 115	5 "
*Zoology 7 part, p. 121	4 "

THIRD YEAR

(Available 1923-1924)

A reading knowledge of French and German for scientific purposes.

Two of Mathematics	3 hours
Political Economy	3 "
Religious Knowledge	3 "
Military Studies	3 "
*Philosophy	2 "
*Psychology	8 "
*Anatomy of the Special Senses	4 "
*Physiology	4 "

FOURTH YEAR

(Available 1924-1925)

A reading knowledge of French and German for scientific purposes.

One of Political Economy	3 hours
Religious Knowledge	3 "
Military Studies	3 "
*Philosophy	2 "
*Psychology	14 "
*Zoology	2 "

*Honours.

MATHEMATICS

ENTRANCE CONDITIONS

A student who proposes to enter the Honour Course in Mathematics is required to obtain at Honour Matriculation or at an equivalent examination at least 50% in Latin, Mathematics (Algebra, Geometry and Trigonometry), Physics, as well as in either German or French.

It is recommended that French be taken at Matriculation; but it is to be kept in mind that a reading knowledge of both German and French will be necessary in the Third and Fourth Years.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
One of German 1a, p. 85	4 "
French 1a, pp. 87, 88	4 "
One of Greek and Roman History 1, p. 77	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Mathematics 1d, 1e, 1f, 1g, p. 110	6½ "
*Actuarial Science 1, p. 113	1 "
*Physics 1, 2, p. 115	6 "
*Chemistry 1, 14, pp. 132, 133	4 "

SECOND YEAR

(Available 1923-1924)

English	2 hours
One of German } French } } (The reading under guidance of one or more } scientific works in the language	2 "
One of History	2 "
Economics	2 "
Religious Knowledge	2 "
Military Studies	2 "
*Mathematics: Differential Calculus, Integral Calculus, Solid Geometry	9 "
*Mechanics	1½ "
*Actuarial Science	2 "
*Physics: Light and Sound, Lecture and Laboratory Courses	4½ "

THIRD YEAR

(Available 1924-1925)

One of History	2 hours
Economics	2 "
Religious Knowledge	3 "
Military Studies	3 "
*Honours.	

THIRD YEAR—*Continued*

*Mathematics. Theory of functions of a Real Variable, Modern Pure Geometry, Differential Geometry, Differential Equations, Theory of Equations (without examination)	9 hours
*Mechanics	3 "
One of *Actuarial Science	3 "
*Astronomy	3 "
*Physics: Electricity and Magnetism	3 "

FOURTH YEAR

(Available 1925-1926)

One of History	2 hours
Economics	2 "
Religious Knowledge	2 "
Military Studies	2 "
One of *Mathematics: Quaternions	2 "
*Mechanics	2 "
*Actuarial Science	2 "
*Astronomy	2 "
*Physics	2 "
Three of *Mathematics: Theory of Functions of a Complex Variable; Differential Equations, Higher Geometry; Theory of Substitution Groups with application to Algebraic Equations	9 "

MATHEMATICS AND PHYSICS

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Mathematics and Physics, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin, Mathematics (Algebra, Geometry, Trigonometry), Physics, as well as in either French or German.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
One of German 1a, p. 85	4 "
French 1a, pp. 87, 88	4 "
One of Greek and Roman History 1, p. 77	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Mathematics 1d, 1f, 1g, 1h, p. 110	5 "
*Actuarial Science 1, p. 113	1 "
*Physics 1, 2, 18 part, pp. 115, 117	7 "
*Chemistry 1, 14, pp. 132, 133	4 "

*Honours.

SECOND YEAR

English 2a, 2b, p. 82	2 hours
One of German 2a, p. 85	3 "
French 2a, p. 88	3 "
One of History 2a, p. 92	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Mathematics 2d, 2e, 2f, pp. 110, 111	6 "
One of *Mathematics 2g, p. 111	½ "
*Actuarial Science 2, 5, 6, p. 113	2 "
*Mechanics 2, p. 112	1½ "
*Physics 3a, 4, 5, 6, p. 115	9 "

THIRD YEAR

One of History 3a, p. 93	2 hours
Mathematics 3b, p. 110 and Physics 29 part, p. 118	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
World History 1 or 2, p. 140	2 "
Military Studies 2, p. 141	3 "
*Mathematics 3c, 3d, p. 111	1 "
One of *Actuarial Science 7, 8, p. 113	2 "
*Physics 31, p. 118	1 "
*Mechanics 3, 4, 5, p. 112	2 "
*Astronomy 3, p. 114	3 "
*Physics 12, 13, 14, 15, 17, pp. 116, 117	11 "

FOURTH YEAR

One of History 4a, p. 93	2 hours
Mathematics 4c, p. 110 and Physics 29 part, p. 118	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	2 "
World History 1 or 2, p. 140	2 "
Military Studies 3, p. 141	3 "
One of the following divisions:	
<i>Division I—Mathematics</i>	
Five of *Mathematics 4d, 4e, 4f, 4g, 4h, 4i, 4j, 4k, 4l, 4m, 4n, p. 111, *Astronomy 4, p. 114, the choice to be determined by the Department	10 "
One of *Mathematics 4p, p. 112	1 "
*Actuarial Science 9, p. 113	2 "
<i>Division II—Physics</i>	
One of *Mechanics 7, p. 112	¾ "
*Mineralogy 6, p. 136	2 "
*Physics 20, 21, 22 or 24, 23, 25, 26, 27, pp. 117, 118	17 "
*Honours.	

FOURTH YEAR—*Continued**Division III—Astronomy and Physics*

*Mathematics 4d, p. 111	2 hours
*Mechanics 6, 7, p. 112	2½ "
*Astronomy 4, 5, 6, 7, 8, p. 114	15½ "
*Physics 20, 27 (<i>Light</i>), pp. 117, 118	4 "

Candidates in the Astronomy and Physics Division are required to take the lectures of Course 20 during the Michaelmas Term and laboratory work in Optics of Course 27 for two afternoons a week during the Michaelmas Term.

PHYSICS

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Physics, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra, Geometry and Trigonometry) as well as in either French or German, and in at least one of Physics, Biology, Chemistry.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
German 1b, p. 85	2 "
French 1b, p. 88	2 "
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Physics 1, 2, 18, pp. 115, 117	6½ "
*Zoology 5, 6, p. 121	3¼ "
*Botany 5, 6, pp. 125, 126	3¼ "
*Chemistry 1, 13, pp. 132, 133	6½ "
*Geology and Palaeontology 1, p. 134	1 "

SECOND YEAR

One of English 2a, 2b, p. 82	2 hours
German 2b, p. 85	2 "
French 2b, p. 88	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
A reading knowledge of French and German for scientific purposes.	
*Mathematics 1f, 2c, p. 110	4 "
*Physics 3a, 4, 5, 6, p. 115	9 "
*Chemistry 3, 7, 15, 24, pp. 132, 133	8 "

**Honours*

THIRD YEAR

A student in the Faculty of Arts who has completed the Second Year in the Honour Course of Mathematics or Chemistry or Chemistry and Mineralogy, may enter the Third Year of the Honour Course in Physics.

A student in the Faculty of Applied Science and Engineering, who has passed the examination of the First and Second Years with honours in any one of the Departments of Civil, Mining, Mechanical, Chemical, Electrical and Metallurgical Engineering, may enter the Third Year of the Honour Course in Physics, provided that he has met the language requirements of the First Year of that course with respect to Latin, English and French or German at the Honour Matriculation or equivalent examination.

One of Physics 29 part, p. 118	1 hour
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 2, p. 141	3 "
A reading knowledge of French and German for scientific purposes.	
*Mathematics 2f first half, 3c, p. 111 *	2 "
*Mechanics 3, 4, p. 112	3 "
*Physics 12, 13, 14, 15, 17, pp. 116, 117	11 "

FOURTH YEAR

One of Physics 29 part, p. 118	1 hour
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
*Mechanics 5, p. 112	1 "
One of *Mechanics 7, p. 112	1/2 "
*Mineralogy 6, p. 136	2 "
*Physics 20, 21, 22 or 24, 23, 25, 26, 27, pp. 117, 118	17 "

BIOLOGY

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Biology, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra, Geometry and Trigonometry) as well as in either French or German, and in at least one of Physics, Biology, Chemistry

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

**Honours*

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
German 1b, p. 85	2 "
French 1b, p. 88	2 "
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Physics 1, 2 18, pp. 115, 117	6½ "
*Zoology 5, 6, p. 121	3¼ "
*Botany 5, 6, pp. 125, 126	3¼ "
*Chemistry 1, 13, pp. 132, 133	6½ "
*Geology and Palaeontology 1, p. 134	1 "

SECOND YEAR

English 2a, 2b, p. 82	2 hour
†One of German 2b, p. 85	2 "
French 2b, p. 88	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Physics 3b, 4, 5, 6, p. 115	7 "
*Zoology 9, p. 122	4 "
*Botany 7, 9, p. 126	4 "
*Chemistry 3, 7, 15, 24, pp. 132, 133	8 "
*Geology and Palaeontology 6, 7, p. 134	3 "

THIRD YEAR

One of English 3a, 3b, p. 82	3 hours
Astronomy 3, p. 114	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 2, p. 141	3 "
*Zoology 7, 8, 12, 13, pp. 121, 122	9 "
*Botany 12, 17, pp. 126, 127	9 "
*Biochemistry 1, p. 129	2 "
*Physiology 2, 5, p. 130	5 "

FOURTH YEAR

One of Zoology 15a, p. 122 (History of Biological Science)	2 hours
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
*Zoology 19, p. 123	
*Botany 16, p. 127	
*Zoology 15, p. 122 or *Botany 20, p. 127	
A selection of twenty hours from one of the following divisions, approved by the department concerned:	

**Honours*

†The selection of the language must be approved by the Staff in Biology

FOURTH YEAR—*Continued**Division I—Zoology*

*Zoology 14, 16, 17, 18, 20, 21, 22, 23, pp. 122, 123 each 4 hours

Division II—Botany

*Botany 18 or 19, 10 or 11, 14, 20a, 8 and 15, pp. 126, 127 each 4 hours

Special work in any one of the foregoing courses may be taken in lieu of one or not more than two of the courses specified.

Division III—General Biology

*Zoology 2 or 3 subjects of Division I 8 or 12 hours

*Botany 3 or 2 subjects of Division II 12 or 8 “

Note—Students proceeding to graduate or special work, in which an acquaintance with the original literature is required, are advised to seek proficiency in reading scientific French and German during their undergraduate course.

PHYSIOLOGY AND BIOCHEMISTRY

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Physiology and Biochemistry, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra, Geometry and Trigonometry) as well as in either French or German, and in at least one of Physics, Biology, Chemistry.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp 19, 20.

The curriculum of this course in the First and Second Years is the same as that for Biological and Medical Sciences (the combined course in Arts and Medicine) During the Third and Fourth Years the curriculum is arranged for specialization in Physiology and Biochemistry *without reference to Medicine*.

FIRST YEAR

English 1a, 1b, pp 81, 82	2 hours
German 1b, p. 85	2 “
French 1b, p 88	2 “
One of Mathematics 1c, p. 109	1 “
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 “
*Physics 1, 2, 18, pp. 115, 117	6½ “
*Zoology 5, 6, p. 121	3¼ “
*Botany 5, 6, pp. 125, 126	3¼ “
*Chemistry 1, 13, pp. 132, 133	6½ “
*Geology and Palaeontology 1, p. 134	1 “

*Honours.

SECOND YEAR

English 2a, 2b, p. 82	2 hours
Mathematics 1j, 1k, p. 112	2 "
One of German 2b, p. 85	2 "
French 2b, p. 88	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Physics 3b, 4, 5, 6, p. 115	7 "
*Zoology 7, 8, pp. 121, 122	7 "
*Chemistry 3, 7, 15, 24, pp. 132, 133	8 "

THIRD YEAR

One of †Astronomy 3, p. 114	2 hours
†Zoology 15a, p. 122 (History of Biological Science)	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 3, p. 141	3 "
Mathematics 2i, p. 112	2 "
A reading knowledge of Scientific French and German.	
*Zoology 27, 29, p. 124	6 "
*Biochemistry 1, 3, p. 129	7 "
*Physiology 1, 2, 5, p. 130	7 "
*Physics 25, p. 117	½ "
*Chemistry 4, 19 part, p. 132, 133	8 "

FOURTH YEAR

One of †Astronomy 3, p. 114	2 hours
†Zoology 15a, p. 112 (History of Biological Science)	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
A reading knowledge of Scientific French or German.	
Mathematics 3e, p. 112	2 "
*Physics 19, p. 117	2 "
*Botany 17, p. 127	4 "
One of the following divisions:	
<i>Division I—Biochemistry</i>	
*Chemistry 20 part, p. 133	3 hours
*Biochemistry 2, 4, 5, p. 129	8 "
*Special work in Biochemistry or Zymology or Organic Chemistry or Physical Chemistry	10 "
<i>Division II—Physiology</i>	
*Biochemistry 2, 4 part, p. 129	5 "
*Physiology 3, 6, 8, p. 130	16 "

†If either of these subjects is taken in the Third Year it cannot constitute an option in the Fourth Year.

*Honours.

BIOLOGICAL AND MEDICAL SCIENCES

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Biological and Medical Sciences, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra, Geometry and Trigonometry) as well as in either French or German, and in at least one of Physics, Biology, Chemistry

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
German 1b, p. 85	2 "
French 1b, p. 88	2 "
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Physics 1, 2, 18, pp. 115, 116	6½ "
*Zoology 5, 6, p. 121	3¼ "
*Botany 5, 6, pp. 125, 126	3¼ "
*Chemistry 1, 13, pp. 132, 133	6½ "
*Geology and Palaeontology 1, p. 134	1 "

SECOND YEAR

A student who is interested in the study of Psychiatry is recommended to take Psychology 2d, p. 109 (2 hours) in either the Second or Third Year.

English 2a, 2b, p. 82	2 hours
Mathematics 1j, 1k, p. 112	2 "
One of German 2b, p. 85	2 "
French 2b, p. 88	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Physics 3b, 4, 5, 6, p. 115	7 "
*Zoology 7, 8, pp. 121, 122	7 "
*Chemistry 3, 7, 15, 24, pp. 132, 133	8 "

THIRD YEAR

One of Mathematics 2i, p. 112	2 hours
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 2, p. 141	3 "

**Honours.*

THIRD YEAR—Continued

*Zoology 26, 27, 28, 29, p. 124	8 hours
*Anatomy 1, p. 128	18 "
*Biochemistry 1, p. 129	2 "
*Physiology 2, 5, p. 130	4 "

FOURTH YEAR

One of Mathematics 3e, p. 112	2 "
Zoology 15a, p. 122 (History of Biological Science)	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
*Anatomy 2, 3, p. 128	4 "
*Biochemistry 3, 5, p. 129	7 "
*Physiology 1, 3, 4, 6, 8, p. 130	10 "
*Bacteriology: Third Year course in the Faculty of Medicine	4½ "
*Special work in one subject to be arranged with head of department of subject elected by student.	6 "

CHEMISTRY AND MINERALOGY

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Chemistry and Mineralogy, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra, Geometry and Trigonometry) as well as in either French or German and in at least one of Physics, Biology, Chemistry.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
German 1b, p. 85	2 "
French 1b, p. 88	2 "
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Physics 1, 2, 18, pp. 115, 117	6½ "
*Zoology 5, 6, p. 121	3¼ "
*Botany 5, 6, pp. 125, 126	3¼ "
*Chemistry 1, 13, pp. 132, 133	6½ "
*Geology and Palaeontology 1, p. 134	1 "

*Honours.

SECOND YEAR

English 2a, 2b, p. 82	2 hours
†One of German 2b, p. 85	2 "
French 2b, p. 88	2 "
One of Chemistry 6b, p. 132	
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Mathematics 2c, p. 110	2 "
*Physics 3a, 6 part, p. 115	3½ "
*Chemistry 3, 7, 9, 16, pp. 132, 133	
*Geology and Palaeontology 6, 7, p. 134	3 "
*Mineralogy and Petrography 1, 3, 4, p. 136	5 "

DIVISION I.—THIRD YEAR

A reading knowledge of French and German for scientific purposes.

One of History 3a, p. 93	2 hours
Chemistry 6b, p. 132	
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 2, p. 141	3 "
*Mathematics 3c, p. 111	½ "
*Physics 4, 5, 6 part, p. 115	5½ "
*Chemistry 4, 8, 10, 12a, 19, 20, pp. 132, 133	
*Mineralogy and Petrography 6, p. 136	2 "

DIVISION I.—FOURTH YEAR

A reading knowledge of French and German for scientific purposes.

One of History 4a, p. 93	2 hours
Chemistry 6b, p. 132	
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
*Physics 16, p. 116	½ "
One of *Zoology 9, 12, p. 122, and *Botany 7, 9, p. 126	4 "
A defined part of *Chemistry 21, p. 133	
*Chemistry 5, 6a, 11, 21, pp. 132, 133	

DIVISION II.—THIRD YEAR

One of English 3a, 3b, p. 82	3 hours
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 2, p. 141	3 "
A reading knowledge of French and German for scientific purposes.	
*Physics 4, 5, 6 part, p. 115	5½ "
*Chemistry 8, p. 132	
*Geology and Palaeontology 8, 9, 10, 11, p. 134	9 "
*Mineralogy and Petrography 5, 6, 7, 8, 11, p. 136	10 "

*Honours.

†Selection to be approved by the Staff in Chemistry and Mineralogy.

DIVISION II.—FOURTH YEAR

One of History 4a, p. 93	2 hours
Mineralogy 15, p. 137	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies, 3 p. 141	3 "
A reading knowledge of French and German for scientific purposes.	
One of *Zoology 9, 12, p. 122, and *Botany 7, 9, p. 126	4 "
*Geology and Palaeontology 14, 16, p. 135	5 "
*Geology and Palaeontology 12, 13, 15, 19, 20, pp. 134, 135	8 "
*Mineralogy and Petrography 9, 10, 12, 13, 14, pp. 136, 137	14 "

CHEMISTRY

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Chemistry, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra, Geometry and Trigonometry) as well as in either French or German and in at least one of Physics, Biology, Chemistry.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
German 1b, p. 85	2 "
French 1b, p. 88	2 "
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Physics 1, 2, 18, pp. 115, 117	6½ "
*Zoology 5, 6, p. 121	3¼ "
*Botany 5, 6, pp. 125, 126	3¼ "
*Chemistry 1, 13, pp. 132, 133	6½ "
*Geology and Palaeontology 1, p. 134	1 "

SECOND YEAR

English 2a, 2b, p. 82	2 hours
†One of German 2b, p. 85	2 "
French 2b, p. 88	2 "
One of Chemistry 6b, p. 132	
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Mathematics 2c, p. 110	2 "
*Physics 3a, 4, 5, p. 115	3 "
*Chemistry 3, 7, 9, 16, 17, pp. 132, 133	
*Mineralogy and Petrography 1, 2, p. 136	2 "

*Honours.

†Selection to be approved by the Staff in Chemistry.

THIRD YEAR

A reading knowledge of French and German for scientific purposes.

One of Chemistry 6b, p. 132	
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 hours
Military Studies 2, p. 141	3 "
*Mathematics 3c, p. 111	$\frac{1}{2}$ "
*Chemistry 4, 8, 10, 12a, 12b, 19, 20, pp. 132, 133	
*Mineralogy and Petrography 3, p. 136	1 "

FOURTH YEAR

A reading knowledge of French and German for scientific purposes.

One of Chemistry 6b, p. 132	
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 hours
Military Studies 3, p. 141	3 "
*Chemistry 5, 6a, 11, 21, pp. 132, 133	

GEOLOGY AND MINERALOGY

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Geology and Mineralogy, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra, Geometry, and Trigonometry) as well as in either French or German and in at least one of Physics, Biology, Chemistry

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
German 1b, p. 85	2 "
French 1b, p. 88	2 "
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Physics 1, 2, 18, pp. 115, 117	$6\frac{1}{2}$ "
*Zoology 5, 6, p. 121	$3\frac{3}{4}$ "
*Botany 5, 6, pp. 125, 126	$3\frac{3}{4}$ "
*Chemistry 1, 13, pp. 132, 133	$6\frac{1}{2}$ "
*Geology and Palaeontology 1, p. 134	1 "

SECOND YEAR

English 2a, 2b, p. 82	2 hours
†One of German 2b, p. 85	2 "
French 2b, p. 88	2 "

*Honours.

†Selection to be approved by the Staff in Geology and Mineralogy.

SECOND YEAR—*Continued*

One of Geology and Palaeontology 17, p. 135	1 hour
Mathematics 2c, p. 110	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Physics 3b, 4, 5, 6, p. 115	7 "
*Zoology 9, p. 122	4 "
*Botany 7, p. 126	3 "
*Chemistry 3, 7, 15, 24, pp. 132, 133	8 "
*Geology and Palaeontology 6, 7, p. 134	3 "
*Mineralogy and Petrography 1, 2, p. 136	2 "

THIRD YEAR

One of English 3a, 3b, p. 82	3 hours
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies, 2, p. 141	3 "
A reading knowledge of French and German for scientific purposes.	
*Chemistry 17, p. 133	
*Geology and Palaeontology 8, 9, 10, 11, p. 134	9 hours
*Mineralogy and Petrography 3, 4, 6, 8, 11, p. 136	9 "

FOURTH YEAR

One of English 4a, 4b, p. 82	3 hours
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
Military Studies 3, p. 141	3 "
A reading knowledge of French and German for scientific purposes.	
One of *Zoology 23 part, p. 123 and *Botany 8, 15, pp. 126, 127	3 "
*Geology and Palaeontology 14, p. 135 and *Mineralogy and Petrography 14, p. 137	3 "
*Geology and Palaeontology 12, 13, 15, 16, 18, 19, 20, 25, pp. 134, 135	12 "
*Mineralogy and Petrography 5, 7, 9, 12, 13, pp. 136, 137	11 "

HOUSEHOLD SCIENCE

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Household Science, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra, Geometry and Trigonometry) as well as in either French or German and in at least one of Physics, Biology, Chemistry.

**Honours.*

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
German 1b, p. 85	2 "
French 1b, p. 88	2 "
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Physics 1, 2, 18, pp. 115, 117	6½ "
*Zoology 5, 6, p. 121	3¼ "
*Botany 5, 6, pp. 125, 126	3¼ "
*Chemistry 1, 13, pp. 132, 133	6½ "
*Household Science 1b, p. 137	1 "

SECOND YEAR

English 2a, 2b, p. 82	2 hours
One of German 2b, p. 85	2 "
French 2b, p. 88	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
*Physics 3b, 4, 5, 6, p. 115	7 "
*Zoology 10, p. 122	2 "
*Botany 13, p. 126	2 "
*Chemistry 3, 7, 15, 24, pp. 132, 133	8 "
*Household Science 2 part, p. 137	6 "

THIRD YEAR

One of English 3a, 3b, p. 82	3 hours
History 3a, p. 93	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
One of *Physiology 2, 5, p. 130	4 "
*Zoology 9, p. 122 and *Botany 7, 9, p. 126	8 "
*Biochemistry 1, 3, p. 129	7 "
*Household Science 3b, p. 138	12 "
*Hygiene and Sanitation	1 "

FOURTH YEAR

One of English 4a, 4b, p. 82	3 hours
History 4a, p. 93	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
*Food Chemistry 1, 3, pp. 129, 130	10 "
*Household Science 4b, 4c, 4d, p. 138	10 "

*Honours.

HOUSEHOLD ECONOMICS

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Household Economics, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra and Geometry) as well as in two of English, French or German, Physics, Biology, Chemistry; preferably in French or German and a Science.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
One of German 1a, p. 85	4 "
French 1a, pp. 87, 88	4 "
One of Household Science 1a, p. 137	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Physics 28, p. 118	4 "
*Zoology 5, 6, p. 121	3¼ "
*Botany 5, 6, pp. 125, 126	3¼ "
*Chemistry 1, 13, pp. 132, 133	6½ "
*Household Science 1b, p. 137	1 "

SECOND YEAR

One of English 2a, 2b, p. 82	2 hours
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
One of German 2a, p. 85	3 "
French 2a, p. 88	3 "
*Zoology 10, p. 122	2 "
*Botany 13, p. 123	2 "
*Chemistry 3, 15 part, pp. 132, 133	4 "
*Household Science 2, p. 137	10 "
*Physiology 9, p. 130	1 "

THIRD YEAR

Philosophy 3a, pp. 102, 103 or †4j, p. 105	3 hours
One of English 3a, 3b, p. 82	3 "
History 3a, p. 93	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
*Biochemistry 1, 3, p. 129	7 "
*Household Science 3b, p. 138	12 "
*Hygiene and Sanitation	1 "

†*St. Michael's College.*

**Honours.*

FOURTH YEAR

Political Economy 22, p. 99	3 hours
One of English 4a, 4b, p. 82	3 "
History 4a, p. 93	3 "
Philosophy 4a, p. 103 or 14j, p. 105	3 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
*Food Chemistry 1, 2, p. 129	8 "
*Household Science 4b, 4c, 4d, p. 138	10 "

SCIENCE FOR TEACHERS

ENTRANCE CONDITIONS

Every student applying to enter the First Year of the Honour Course in Science for Teachers, must present, in addition to Pass Matriculation standing, a certificate of having obtained at Honour Matriculation or at an equivalent examination, at least 50% in Latin and Mathematics (Algebra, Geometry and Trigonometry) as well as in either French or German and in at least one of Physics, Biology and Chemistry.

A student who, on admission to this course, has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 46-48, pp. 19, 20.

FIRST YEAR

English 1a, 1b, pp. 81, 82	2 hours
German 1b, p. 85	2 "
French 1b, p. 88	2 "
One of Mathematics 1c, p. 109	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
*Physics 1, 2, 18, pp. 115, 117	6½ "
*Zoology 5, 6, p. 121	3¼ "
*Botany 5, 6, pp. 125, 126	3¼ "
*Chemistry 1, 13, pp. 132, 133	6½ "
*Geology and Palaeontology 1, p. 134	1 "

SECOND YEAR

English 2a, 2b, p. 82	2 hours
One of German 2b, p. 85	2 "
French 2b, p. 88	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Military Studies 1, p. 141	2 "
*Mathematics 2c, p. 110	2 "
*Physics 3b, 6 part, p. 115	4 "
*Zoology 9, p. 122	4 "
*Botany 7, 9, p. 126	4 "
*Chemistry 7, 15, pp. 132, 133	6 "
*Geology and Palaeontology 6, 7, p. 134	3 "
*Mineralogy and Petrography 1, 2, p. 136	2 "

†*St. Michael's College.*

**Honours.*

THIRD YEAR

One of History 3a, p. 93	2 hours
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
Military Studies 2, p. 141	3 "
*Astronomy 3, p. 114	2 "
*Physics 4, 5, 6 part, 13, 17 part, pp. 115-117	8 "
*Zoology 7 part, 12, pp. 121, 122	3 "
*Botany 17, p. 127	4 "
*Chemistry 3, p. 132	2 "
*Geology and Palaeontology 8, p. 134	2 "
*Mineralogy and Petrography 3, 4, p. 136	4 "

FOURTH YEAR

One of History 4a, p. 93	2 hours
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	2 "
Military Studies 3, p. 141	3 "
*Astronomy 2, pp. 113, 114	2 "
*Physics (to be selected)	4 "
*Zoology 23, p. 123 or *Botany 12, p. 126	4 "
*Chemistry 8, 25, pp. 132, 133	4 "
*Geology and Palaeontology 13, 18, p. 135	} 4 "
*Mineralogy and Petrography 6 part, 11, p. 136	
One of *Physics (to be selected)	4 "
*Zoology 23, p. 123	4 "
*Botany 10 or 14, 20, pp. 126, 127	4 "
*Chemistry (to be selected)	4 "
*Geology and Palaeontology 15, 16, p. 135	4 "
*Mineralogy and Petrography 9, 12, 14, pp. 136, 137	4 "

ARTS AND FORESTRY

The following schedule shows the subjects and amount of time to be devoted to each. In order to meet the exigencies of the time-table their location in each year may be varied, with the concurrence of the Faculties concerned.

FIRST YEAR

Latin 1a, p. 75, or Greek 1a, p. 73	4 hours
English 1a, 1b, pp. 81, 82	2 "
One of German 1a, p. 85	4 "
French 1a, p. 88	4 "
Mathematics 1a, 1b, 1c, p. 109 or 11, 1m, p. 112	3 "
Physics 1, 2, 18, pp. 115, 117	6½ "
Zoology 5, 6, p. 121	3½ "
One of Greek and Roman History 1, p. 77	1 hour
Religious Knowledge 1a or 1b or 1c or 1d, p. 139	1 "
†Forestry 1 (Synopsis)	1 "

*Honours.

SECOND YEAR

English 2a, 2b, p. 82	2 hours
One of German 2a, p. 85	3 "
French 2a, p. 88	3 "
History 2a, p. 92	1 "
Botany 5, 6, 9, pp. 125, 126	3¼ "
Chemistry 1, 14, pp. 132, 133	4 "
One of Latin 2a, p. 75	3 "
Physics 3b, p. 115	1½ "
Military Studies 1, p. 141	2 "
One of Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 140	2 "
Geology and Palaeontology 1, p. 134	1 "
†Forestry 2a	3 "

THIRD YEAR

English 3a, 3b, p. 82	3 hours
One of German 3a, p. 85	3 "
French 3a, p. 88	3 "
One of Mathematics 2j, p. 112	1 "
Actuarial Science 3, p. 113	1 "
Botany 7, 17, pp. 126, 127	7 "
Chemistry 3, p. 132	2 "
Geology, §Course 195	1 "
Mineralogy, §Course 258	2 "
One of Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 140	3 "
World History 1 or 2, p. 140	2 "
Military Studies 2, p. 141	3 "
Surveying and Map Drawing, §Course 270	5 "
†Forestry 2b, 7	5 "

FOURTH YEAR

History 4a, p. 93	2 hours
Geology 13, p. 135	1 "
One of Philosophy 3b, p. 103	3 "
Physics 4, 5, p. 115	1½ "
Chemistry 4, p. 132	2 "
One of Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 140	3 "
World History 1 or 2, p. 140	2 "
Military Studies 3, p. 141	3 "
Surveying and Map Drawing, §Courses 271, 272	7 "
†Forestry 6, 8, 9	8 "
†Nursery work	2 weeks

§See Calendar of the Faculty of Applied Science and Engineering.

†See Calendar of the Faculty of Forestry.

FIFTH YEAR

English 4a, 4b, p. 82	2 hours
Political Economy 1a, 1b, 8, pp. 94, 95	3 "
Law 4, pp. 100, 101	2 "
One of Philosophy 4a, p. 103	3 "
Science, to be arranged	3 "
Zoology 37, p. 124	3 "
†Forestry 3, 4, 5, 7, 11	15 "
†Practice camp	6 weeks

SIXTH YEAR

Law 8, p. 102	1 hour
Botany 25, p. 127	3 "
Chemistry 12a, p. 132	1 "
Philosophy 4b, p. 103	3 "
Forest Engineering, to be arranged	
†Forestry 10, 12, 13, 14	5 "

SUMMARY

Latin	(+4) hours
Greek	(+4) "
English	9 "
German	10 "
French	10 "
Mathematics	5 (+1) "
History	3 (+4) "
Political Economy	3 "
Law	3 "
Philosophy	3 (+6) "
Physics	6½ (+3) "
Zoology	6¼ "
Botany	13¼ "
Chemistry	7 (+2) "
Geology	2 (+1) "
Mineralogy	2 "
Science	(+3) "
Religious Knowledge	(+8) "
Military Studies	(+8) "
Surveying and Map Drawing	12 "
Forest Engineering	
Forestry	37 "
Field Work	8 weeks

Hours in parenthesis are options exchangeable with other Departments.

†See *Calendar of the Faculty of Forestry*.

COURSE FOR THE DEGREE OF BACHELOR OF COMMERCE

Students in Commerce have the choice of proceeding to a degree in Arts in the Department of Commerce and Finance or of proceeding to the degree of Bachelor of Commerce. The former offers the advantages in general education of an Arts degree; the latter is designed to provide instruction in those branches of education specially adapted to the study of business.

The intention of the course is to provide a training for business and commercial life in general and at the same time to prepare applicants for the consular service, trade commissions abroad, for the foreign representation of Canadian firms as well as for the statistical and employment departments of large business houses.

ENTRANCE REQUIREMENTS

Part I. Pass Matriculation. English, History, Mathematics and three of Greek, Latin, German, French, Spanish or Italian, Science, of which one at least must be a Modern Language.

Part II. Honour Matriculation. English, Mathematics (Algebra, Geometry and Trigonometry) and one of German, French, Spanish.

A student who submits a Part I. Commercial Specialists' Certificate may substitute the same for Ancient History and a language of Pass Matriculation and for the Geometry and Trigonometry of Honour Matriculation.

GENERAL REGULATIONS FOR THE COURSE

A candidate will not receive credit in a subject unless he obtains at least fifty per cent. of the examination marks as well as fifty per cent. of the aggregate of the term and examination marks in that subject.

A candidate will be granted Honour standing who, obtaining at least fifty per cent. in each of the subjects of a year, also secures an average of seventy-five per cent. of all the marks assigned to the subjects of the year.

A candidate for the Examination of any year will be granted Pass standing provided he passes in all, or all but one of the subjects of the year.

A candidate who has failed in two subjects at the Annual Examination will be debarred from registration and enrolment until he has completed the work of the year.

A candidate in any year, who has failed completely at the May examination, will not be allowed to write at the September examination on any paper or papers set for students in Commerce; if he wishes to proceed in the course he must repeat the year in which he has failed to secure standing.

Before the completion of the course of four years a candidate must produce evidence of employment for a definite period in a commercial firm, in public service or in some business capacity.

By arrangement with the Department of Education graduates in this course who have obtained a Part I. Commercial Specialists' Certificate either prior to entering the University or during the course, will be recognized as having secured the academic standing required from candidates for the Commercial Specialists' Certificate.

FIRST YEAR

English 1a, 1c (ii), p. 88	2 hours
§One of German 1f, 1g, p. 86	4 "
French 1c, 1d, 1e, p. 88	4 "
Italian 1a or 1b, p. 90	4 "
Spanish 1a or 1c, p. 91	4 "
Economics 1a, 1b, 2, 3, 4, pp. 94, 95	2½ "
Mathematics 1i, p. 110	2 "
Actuarial Science 1, p. 113	1 "
Geology and Palaeontology 23, p. 135	1 "

§The language chosen in the First Year must be continued throughout the four years.

SECOND YEAR

English 2a, 2b, p. 83	2 hours
One of German 2f, p. 86	4 "
French 2c, 2d, 2e, p. 88	4 "
Italian 2, p. 90	4 "
Spanish 2a, p. 91	4 "
Economics 1a, 1b, 5, 6, pp. 94-96	4 "
One of Philosophy 2a part, p. 102 or †2i, p. 106	2 "
Mathematics 2h, p. 111	2 "
Actuarial Science 3, p. 113	1 "

THIRD YEAR

One of German	
French 3b, pp. 88, 89	3 hours
Italian 3e, p. 91	3 "
Spanish 3e, p. 91	3 "
Economics 1a, 1b, 9a, 10, 11, 12, 13, pp. 94-97	8 "
Actuarial Science 4, p. 113	2 "

FOURTH YEAR

(Available 1923-1924)

One of German	
French	
Italian	
Spanish	
Economics 1a, 1b, 15, 21, pp. 94-99	3 hours
Two of Economics 16, 17, 18, 19, 20, pp. 98, 99	4 "
Actuarial Science (Cost Accounting and Auditing)	2 "

†*St. Michael's College.*

SUMMER SESSION

SUMMER SESSION, 1922

During the Summer Session of 1922 the University of Toronto offers:

(a) The Course leading to the Degree of Bachelor of Arts (The Teachers' Course).

(b) Courses leading to the Degrees of Bachelor of Pedagogy and Doctor of Pedagogy

GENERAL INFORMATION

SESSION

Enrolment with the instructors will begin at 10 a.m., Monday, July 3rd, and may be completed at any time between 10 a.m. and 12 a.m. or between 2 p.m. and 4 p.m. on that day. Students should first call at the Extension Office for cards of admission. The work of instruction will begin on the morning of Tuesday, July 4th, and continue through Saturday, August 5th, including Saturday forenoons, but exclusive of Civic Holiday.

REGISTRATION

Application for registration should be made on the form in this Calendar and should, if possible, be forwarded to the Director of University Extension before June 6th. Applications will be accepted up to July 3rd, but subjects not mentioned in this Calendar cannot be arranged for after June 6th.

RESIDENCES

The University Residences will be open for the accommodation of students during the Summer Session. As rooms are assigned in the order in which applications are received, applications with the deposit fee of \$5.00 should be sent as early as possible to Mr. A. T. Laidlaw, Registrar's Office, University of Toronto.

LIBRARY

Students of the Summer Session will be admitted to the privileges of the University Library.

EXCURSIONS AND ADDRESSES

Arrangements will be made, if students so desire, to visit a few places of interest under the personal direction of one who is able to give special instruction on the point of interest. Tennis courts will be available for those who wish to use them. Social functions are arranged each year with the co-operation of the Students' Committee.

Evening lectures will be arranged during the session on subjects of general interest.

THE COURSE LEADING TO THE B.A. DEGREE

ADMISSION

Applications for admission to the University are to be made on the special forms provided and must be accompanied by all secondary school certificates held by the applicant. Certificates should be sent by registered mail; they are returned as soon as their purpose has been served.

FEES

Tuition—One subject, \$10.00; two subjects, \$18.00; three subjects, \$24.00.

For admission by certificate to the Second Year. . . . \$15.00

For admission *ad eundem statum*. \$10.00

Examinations—\$2 00 each subject.

Laboratory—For Practical Work in the laboratory, a deposit fee is required at the beginning of the Session to cover breakages. All, or part, of the fee is returned at the close of the term according to the number and value of the breakages.

EXAMINATIONS

The examinations will be held, in Ontario, at the time of the regular University examinations in September and in May. In other Provinces examinations are held in September, at Winnipeg, Regina, Saskatoon, Edmonton, Calgary, and Vancouver.

SUBJECTS

The Pass Course, according to the following scheme, will be the basis of instruction:

First Year.—(1) English, (2) Latin, (3 and 4) Two of (a) Greek, (b) German, (c) French, (d) Spanish, (e) Physics and Chemistry or Biology, (5) Mathematics (Algebra and Geometry), (6) Trigonometry.

These are all subjects for which credit may be secured on an Upper School, Faculty Entrance, Honour Matriculation, or equivalent certificate. The Teachers' Course, therefore, ordinarily begins with the Second Year, the exception being First Year French which is occasionally offered for the convenience of teachers whose certificates do not include this subject.

Second Year.—English or Mathematics, French, Science, History, Psychology or Political Economy.

Third Year.—English, French or Mathematics, Science, History, Ethics or Political Economy.

Fourth Year.—English, French or Mathematics, Science, History, History of Philosophy or Political Economy.

The Science of these three years is made up of Botany, Zoology, and Geology, which are offered in any order, one each session, and are of equal value. A student who selects Mathematics, or Political Economy,

or the philosophical group of subjects, must take the subjects or group chosen throughout the three years, *i.e.*, the sequence provided by these subjects cannot be broken. Four Summer Sessions is the minimum attendance requirement. Correspondence work is preparatory to the work of the Summer Session.

SUBJECTS OFFERED IN SUMMER SESSION, 1922

(For details of courses, see pages 307 and 308).

Second Year English, Mathematics, French, Botany.

Third Year ...English, Psychology, Botany.

Fourth Year English, Botany.

It is essential that requests for subjects not mentioned in this list should be sent in early so that the necessary arrangements for classes can be made. The time-table will not permit of a student taking, at the same time, other summer courses besides those offered by the University

GENERAL NOTES ON THE TEACHERS' COURSE

1. The work of the First Year will ordinarily be taken in the Upper School courses conducted by the Department of Education. The Second, Third, and Fourth Years will be taken under the Faculty of Arts.

2. A candidate holding an Upper School certificate, or equivalent certificate, may enter the Second Year, provided he has credit for not fewer than five of the six subjects of the First Year.

3. A candidate will not receive credit for a subject of a higher year until he has passed the examination of the lower year in the same subject. He may, however, be a candidate for examination in the work of two successive years in the same subject.

4. For teachers who live sufficiently near the University, *Teachers' Classes* are available during the regular University Session. These lectures are given after 4 p.m. on certain afternoons of the week and on Saturday forenoons.

5. Other teachers are given correspondence work during the regular session in preparation for the Summer Session. This preparation is compulsory.

6. Only under exceptional circumstances is a student allowed to attend classes in more than three subjects during one session of the Teachers' Course.

7. The minimum attendance requirement for the work of the Second, Third, and Fourth Years is four Summer Sessions.

8. The pass standard in all subjects is 50 per cent.

9. A candidate will receive credit for each subject in which he secures the minimum percentage required for pass standing.

COURSES OF INSTRUCTION, SUMMER SESSION, 1922

FACULTY OF ARTS

Second Year

ENGLISH

Composition. The writing of original compositions.

Shakespeare. Romeo and Juliet, Henry IV, Parts I and II; Twelfth Night; Hamlet.

MATHEMATICS

Algebra: A course in limits and infinite series, serving as an introduction to the calculus.

Analytical Geometry: A review and extension of the earlier course in two dimensions, with special attention to the graphs of functions, and an elementary course in three dimensions treating of the plane, the line, the sphere, and the conicoids.

FRENCH

Grammar; dictation; translation from English into French; translation at sight from modern French. The following texts are prescribed for critical study: Barrès, Collette Baudouche, Pailleron, *Le Monde où l'on s'ennuie*, Coppée, *Pour la couronne*; French Short Stories (ed. Buffum), or Georges Duruy, *Histoire sommaire de la France, classe de septième*.

BOTANY

A course in Botany, with the emphasis on the Natural History of Plants, including the knowledge of the various types of vegetable life, and the classification, oecology and uses of both native and introduced forms. Some attention will also be given to the origin of our cultivated plants. The course is designed as a general course in Botany to meet especially the needs of the Nature Study Teacher.

Third Year

ENGLISH

The writing of essays on subjects connected with one of the Third Year courses in literature.

Transition and earlier nineteenth-century literature; The selections from Collins to Scott inclusive in REPRESENTATIVE POETRY; Goldsmith, *The Vicar of Wakefield*; Burke, *American Taxation*, *Conciliation with America*; Scott, *Marmion* (with introductory epistles), the essays by Wordsworth, Coleridge, Lamb and Hazlitt in ENGLISH CRITICAL ESSAYS OF THE NINETEENTH CENTURY (World's Classics), Jane Austen, *Pride and Prejudice*; Lamb, *Poor Relations*, *Detached Thoughts on Books and Reading*, Christ's Hospital; Newman, *Idea of a University* (Knowledge its own end and Knowledge in relation to learning); Carlyle, *Signs of the Times*, *Characteristics*.

PSYCHOLOGY

Principles and application of experimental psychology; lectures and laboratory.

General experimental course.

BOTANY

See prescription for Second Year.

Fourth Year

ENGLISH

The writing of essays on subjects connected with one of the Fourth Year courses in literature.

Later nineteenth-century literature; selections from Byron to Morris in REPRESENTATIVE POETRY, essays by Shelley, Arnold, Ruskin, Mill and Bagehot in ENGLISH CRITICAL ESSAYS OF THE NINETEENTH CENTURY (World's Classics); Carlyle, Sartor Resartus (Books I and II); Thackeray, Vanity Fair; Ruskin, A Joy Forever; Arnold, The Function of Criticism, The Literary Influence of Academies.

SUMMER SESSION IN PEDAGOGY

(Degrees of B Paed. and D.Paed.)

1. The candidate shall hold an approved degree in Arts, Science, Agriculture, Engineering, or Commerce.

2. A candidate for the B.Paed. degree who holds a Second Class, First Class, or High School Assistant's certificate must attend for two Summer Sessions and write off two subjects. Similarly, a candidate for the D Paed. degree must attend for three Summer Sessions, write off three subjects, and submit a thesis.

3. The annual examinations for the B.Paed. and D.Paed. degrees are held in May.

FEES

Registration	\$10.00
(This fee is paid only once for the complete course)	
Tuition for the Summer Session	10.00
Examinations, each subject.	3.00

SUBJECTS OFFERED IN SUMMER SESSION, 1922

(Classes in the following subjects will be conducted in the buildings of the Ontario College of Education, 371 Bloor Street West.)

I. Educational Administration.

In this course the main emphasis will be placed on problems confronting Canadian educators. A comparative survey will be made of the educational systems of England, France, Germany, and the United States.

II. History of Education (in Western Europe and in North America in modern times):

This course will consist of two parts. The first part will deal with the history of educational theory during the 19th century. The second will discuss the evolution of modern educational systems. In both parts the chief stress will be laid on the evolution of educational ideas in Canada, England, and the United States.

III. Educational Psychology:

The following will be discussed:

The original nature of man; the learning process; genetic psychology; the psychology of elementary and high school subjects, including standard tests for the same; intelligence, its nature and measurement, statistics applied to education.

IV. Science of Education:

This subject comprises a study of the philosophical and sociological principles underlying the practice of education.

SUGGESTIONS APPLICABLE TO ALL COURSES

1. Fees are payable strictly in advance.
2. Remittance should be made by Money Order; if cheques are used, they must in every case be payable at par in Toronto to the University of Toronto.
3. The Library of the Department of Education, Parliament Buildings, Toronto, is available for the use of all Ontario teachers and the Department is anxious that every teacher should make use of it. There are no fees—the teachers pay only return postage on books borrowed.



UNIVERSITY COLLEGE.

UNIVERSITY COLLEGE

University College is, since the Federation Act of 1887, the complement, in the system of higher education provided by the State, of the University of Toronto. The State furnishes through University College instruction in those departments of the Arts course in which it does not furnish instruction through the University. The departments are Greek, Latin, Ancient History, English, French, German, Oriental Languages, and Ethics.

<i>Principal</i>	MAURICE HUTTON, M A., LL.D.
<i>Registrars</i>	{ F. C. A. JEANNERET, B A. G. OSWALD SMITH, M.A.
<i>Resident Head of the Women's Union</i> . .	MISS M. M. WADDINGTON, PH.D.

UNIVERSITY COLLEGE COUNCIL

THE PRINCIPAL.

PROFESSORS ALEXANDER, CAMERON, CARRUTHERS, CRAIG, KEYS, MAC-NAUGHTON, MILNER, NEEDLER, TAYLOR, TRACY, WALLACE, WILL.
ASSOCIATE PROFESSORS COCHRANE, DE CHAMP, FAIRLEY, JEANNERET, KNOX, MORAUD, SMITH.
ASSISTANT PROFESSORS CLAWSON, DALE, DUFF, HEDMAN, MCKELLAR, WOODHEAD

ENROLMENT OF STUDENTS

The conditions precedent to enrolment in University College are determined by the Council of the College. Every student of the College must either be an undergraduate of the University, or, if he be an occasional student, must satisfy the College Council that he has a sufficient knowledge of the subjects in which he proposes to attend College lectures to do so with advantage.

DISCIPLINE

The College has full control of its students so far as concerns their attendance upon lectures in the courses provided by the College, and their admission to the University examinations. No student of the College will be received by the University for examination without a certificate from the College that he has complied with its regulations.

RELIGIOUS KNOWLEDGE

No student will be allowed to take a Religious Knowledge option in any other than University College without the consent of the College Council. Each student who wishes to take a course in Religious Knowledge outside University College must make formal application on or be-

fore October 25th, stating what course he desires to take, for what subject the course is an option, in which College the applicant proposes to take this course and for what reason he wishes to take it outside University College

LODGING AND BOARD

Lodging and board are obtainable in private boarding houses within convenient distance of the University, or rooms may be rented and board obtained separately. A list of accredited boarding-houses is kept by the Secretary of the University Young Men's Christian Association in Hart House, and by the Resident Head of the University College Women's Union. Students are recommended to consult them with reference to the selection of suitable accommodation. Board may also be obtained at moderate rates at Hart House, and for Women at the Women's Union.

For University and College Residences see pages 57, 58, 61.

STUDENT SOCIETIES, ETC.

Various societies and associations have been organized in the College for the promotion of Christian effort, social intercourse, literary and scientific activity, and athletics.

The College has a branch of the University Young Men's Christian Association, which has its quarters in Hart House.

The women students have a College branch of the Student Christian Movement of Canada.

The University College Literary and Athletic Society is the authorized administrative body of the men students of the College, for which a compulsory fee of \$2.00 a year is collected from each member. This Society officially represents the men students in dealing with the University and College governing bodies. It directs the social and athletic activities of the men students. It also holds debates and literary programmes, usually on Tuesday evenings in the West Hall.

The Women Undergraduates' Association holds a similar position in relation to the women students.

A joint committee representing these two bodies confers from time to time on matters of common interest to all the students.

Each Year has its own elected executive. The Presidents of the four Years are *ex officio* Councillors on the executive of the Literary and Athletic Society.

There is also a Women's Literary Society of the College

Besides the above there are several associations connected with the College departments, such as the Classical Association, the Modern Language Club, etc. There are similar societies connected with the University departments, to which members of the College are eligible.

A magazine, "Patches," devoted to literature and College topics is published two or three times each session.

REGULATIONS RELATING TO STUDENTS, TERMS AND EXAMINATIONS

1. Students entering University College are required to produce satisfactory certificates of moral character and previous good conduct.

2. No student will be enrolled in any year, or be allowed to continue in attendance, whose presence for any cause is deemed by the Council to be prejudicial to the interests of the College.

3. Students are required to attend the courses of instruction and examinations in all subjects prescribed for students of their respective standing, and no student will be permitted to remain in the College who persistently neglects academic work.

4. The certificate required for admission to the University examinations will not be granted to students who have been reported to the Council for not conforming to the College regulations, or for improper conduct of any kind.

5. Students are required to reside, during the period of their attendance on lectures, in houses selected by their parents or guardians or approved by the College Council.

6. Men and women students, unless members of the same family, are not permitted to reside in the same lodging-houses.

7. All women undergraduates in University College are required to register with the Resident Head of the Union at the beginning of term. Her directions as to conduct are to be observed. Women undergraduates who are away from home and not in a College Residence must have their boarding-houses approved by her.

8. All interference on the part of any student with the personal liberty of another, by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence, is forbidden by the Council. Any student convicted of participation in such proceedings will forfeit the certificate required for admission to the University examinations, and will render himself liable to expulsion from the College.

9. A student who is under suspension, or who has been expelled from the College or University, will not be admitted to the University buildings or grounds.

10. The constitution of every College society or association of students and all amendments to any such constitution, must be submitted for approval to the College Council. All programmes of such societies or associations must, before publication, receive the sanction of the Council. Permission to invite any person not a member of the Faculty of University College to preside at or address a meeting of any society or association is subject to the consent of the Council. Societies and associations are required to confine themselves to the objects laid down in their constitution.

11. The name of the College is not to be used in connection with a publication of any kind without the permission of the College Council.

12. Certificates of attendance on lectures in any department during an

academic year may be given to occasional students who have been regular in their attendance, and who have also passed the examinations in such department.

13 (a) Each Society composed wholly or in part of students registered in University College shall supply the Principal with a copy of its constitution, and the names and addresses of its officers.

(b) The Council of University College will sanction dancing only in buildings the use of which it has authorized.

(c) In every instance where dancing forms any part of the programme a complete list of the participants who are not University students, with their addresses, shall be supplied by the President of the Society.

(d) For each evening meeting attended by both men and women students chaperons must be appointed, the names and addresses of whom shall be submitted one week in advance to Miss Waddington, 85 St. George Street.

(e) Dancing shall cease by 11 o'clock p m, unless special permission has been obtained for its continuance beyond that hour.

(f) When dancing forms part of a regular meeting of a Society, it shall be limited to the final half-hour.

(g) Applications for permission to hold social gatherings are to be addressed in writing to the Convener of Committee on Social Activities at the Post Office, University College.

WINNERS OF PRIZES, MEDALS AND SCHOLARSHIPS IN THE COLLEGE IN 1921

PRIZES

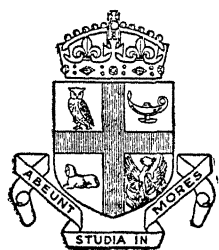
The Squair French Prose Prize	R. A. Allen
The Toronto Alumnae Prize in English Composition of the Second Year	E. W. McInnis

MEDALS

Governor-General's Medal in Modern Languages (Fourth Year).	Miss G. M. Cook
McCaul Medal in Classics	R. A. Allen
	H. L. Tracy

SCHOLARSHIPS

The McCaul, for Classics (Junior Matriculation)	F. W. Beare
The Moss, for Classics (First Year)	No award
The Edward Blake, for Moderns (First Year).	Miss K. M. Halford
	Miss M. Spence
The William Mulock, for Classics (Second Year)	L. A. MacKay
The George Brown, for Moderns (Second Year)	J. J. F. McKeown
The Moss, for Classics (Third Year).	Miss M. C. Needler
The Julius Rossin, for Moderns (Third Year).	Miss D. L. Arthur
The John Macdonald, for Philosophy (Third Year)	W. M. Mustard



VICTORIA COLLEGE.

VICTORIA COLLEGE

Victoria College was founded by resolution of the Conference of the Methodist Church in Canada, held in Kingston in August, 1830. The institution was opened for students at Cobourg on the 18th of June, 1836, with the Rev. Matthew Richey, M.A., as Principal. On the 12th of October, 1836, letters patent were issued by His Majesty King William IV, incorporating the institution as a seminary of learning for the Province of Upper Canada, under the name of "Upper Canada Academy".

In 1841 the Parliament of the United Provinces of Upper and Lower Canada, being now first constituted by Acts of the Imperial Parliament with power to grant such a charter, at its first session held in the city of Kingston, passed an Act extending the charter of the Academy under the name and style of "Victoria College, with power and authority to confer degrees of Bachelor, Master and Doctor of the various Arts and Faculties", which Act was assented to by the Governor-General on the 27th of August, 1841.

On the 21st of October, 1841, the Rev. Egerton Ryerson, having been appointed principal, opened the first college session under the enlarged charter.

In the year 1844 the Rev. A. McNabb, D.D., succeeded the Rev. Dr. Ryerson as Principal, and occupied the office until 1849. At the close of his term the number of students in the College was 140.

In 1850 the Rev. S. S. Nelles, M.A., was appointed Principal, and addressed himself to the task of organizing and enlarging the College to the status and work of a University. In the year 1854-55 the Faculty of Medicine was added and established in Toronto. In 1860, the Faculty of Law was added, and in 1871 the Faculty of Theology.

In the year 1883-84 a Commission, appointed by the General Conference of the Methodist Church, arranged for the consolidation of Albert College, Belleville, with Victoria College, Cobourg, and legal effect was given to this consolidation by Act of the Legislature of Ontario, 47 Vict., chap. 93.

The corporate name was by this Act changed to "Victoria University". The government of the University was vested in a Board of Regents, Chancellor, Vice-Chancellor and Senate. To these bodies was given power to affiliate outlying colleges, and full university powers in all faculties were continued. The Rev. S. S. Nelles, D.D., LL.D., as President, was *ex-officio* first Chancellor, and William Kerr, M.A., LL.D., K.C., Senator, was elected first Vice-Chancellor.

Under the provisions of the present charter the following colleges are affiliated in Arts with Victoria University —Albert College, Belleville; the Ontario Ladies' College, Whitby; Alma College, St. Thomas.

In 1887, the Rev S S Nelles, D.D., LL.D, died, and the Rev. N. Burwash, S.T.D., LL D., was appointed President and Chancellor.

On the 12th of November, 1890, under the provisions of the Revised Statutes of Ontario, chap 230, and the Acts amending the same, Victoria University was, by proclamation of the Lieutenant-Governor, federated with the University of Toronto

On the first of October, 1892, the Faculty of Victoria College began work in the present Main Building in Queen's Park, Toronto, and the federation of the Universities was practically consummated. The Faculty of Arts then assumed the work and relation of a College in the University of Toronto, providing instruction in all subjects assigned by the Federation Act to University College. In other subjects the students of Victoria College attend the lectures and laboratory practice of the University of Toronto, and receive their degrees under the statutory regulations of its Senate.

By the provisions of the Federation Act of 1887 the President of Victoria College, a representative of the Senate of Victoria College, and five representatives of the graduates in Arts, are members of the Senate of the University of Toronto, and the graduates and undergraduates of Victoria College are granted the same standing and privileges in the University of Toronto. By the provisions of the University Act of 1906, three members of the Arts Faculty of Victoria, chosen by that body, are sent as additional representatives to the Senate of the University of Toronto, and all the permanent members of the Arts Staff of Victoria as well as one member of the theological staff chosen by that Faculty are members of the Council of the Faculty of Arts of the University of Toronto.

At Federation five hundred and seventy-seven graduates of Victoria College were admitted to standing and privileges of the degree of B.A. in the University of Toronto; two hundred and thirty-one to those of M.A.; nine hundred and sixty-three to those of M.D; one hundred and twenty-five to those of LL.B.; and forty to those of LL.D.

By the University Act of 1901 the electoral body in Convocation of Victoria College was made permanent, and was enlarged to include all graduates in Arts of the University of Toronto since 1892 who at graduation were enrolled in Victoria College.

The electoral body of Victoria College in the Convocation of the University of Toronto now consists of about 2047 graduates in Arts, besides the graduates in Law and Medicine, who form one body with those of the University of Toronto.

In 1913, the Rev. N. Burwash, S.T.D., LL.D., retired from the position of President and Chancellor and the Rev. R. P. Bowles, M.A., D.D., LL.D., was appointed in his stead.

The following Benefactions have been given to Victoria University for the endowment of chairs and erection of buildings:—

Mr. and Mrs. Edward Jackson for endowment of chair, \$30,000.

Wm. Gooderham, Esq., for building and endowment, \$200,000.

The Honourable Geo. A. Cox and Mrs. Cox, for endowment of two chairs, \$100,000.

Hart A. Massey, Esq., for building and endowments, \$960,000.

The Honourable John Macdonald, for building for federation purposes, \$25,000.

W. E. H. Massey, Esq., for endowment, three hundred shares of Massey-Harris Stock.

Sir Joseph Flavelle, Bart., LL.D., for endowment, \$30,000.

Andrew Carnegie, Esq., for library building, \$50,000.

Cyrus A. Birge, Esq., for library endowment, \$50,000.

From these and other sources the following Chairs have been endowed:—

The Edward Jackson Chair in Biblical and Systematic Theology.

The Ryerson Chair in Ethics and Evidences of Christianity.

The Nelles Chair in Ancient History.

The William Gooderham Chair in English Literature.

The Eliza Gooderham Chair in French Literature.

The H. A. Massey Chair in the English Bible.

The Eliza Phelps Massey Chair in Old Testament Exegesis.

The Geo. A. Cox Chair in New Testament Exegesis.

The Margaret Cox Chair in Homiletics and Pastoral Theology.

The W. E. H. Massey Chair in Greek Language and Philosophy.

The J. W. Flavelle Chair in Hebrew.

A special endowment for the Presidency of the College.

The John Macdonald Chair in Latin.

The buildings, library, furniture and grounds of Victoria College are now valued at \$1,034,542.82; and the endowment is \$1,080,319.18.

GOVERNMENT OF VICTORIA COLLEGE

THE BOARD OF REGENTS

Representatives of the General Conference:

REV. S. D. CHOWN, D D., *General Superintendent.*
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 F. N. G. STARR, C B.E., M.D., C.M., F.A C.S.
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 REV. A. P. ADDISON, B.D.
 PROFESSOR C. T. CURRELly, M.A.

Co-opted by the Representatives of the General Conference and Alumni:

REV. R. P. BOWLES, M A., D.D., LL.D., *Chancellor.*
 E. R. WOOD, ESQ.
 H. C. COX, ESQ.
 W. E. RUNDLE, ESQ.
 G. H. WOOD, ESQ.
 REV. H. W. CREWS, M.A., D.D.
 CHAS. AUSTIN, ESQ.
 J. H. GUNDY, ESQ.

THE SENATE

REV. R. P. BOWLES, M.A., D D., LL D., *Chancellor.*

HON. MR. JUSTICE MACLAREN, M.A , LL.D , *Vice-Chancellor.*

REV. S. D. CHOWN, D D , *General Superintendent of the Methodist Church*

A. P. COLEMAN, M.A , PH.D. (Bres.) LL.D., F.R.S., *Honorary Professor.*

PROFESSORS OF THE FACULTY OF ARTS

PROFESSORS OF THE FACULTY OF THEOLOGY.

MEMBERS OF THE BOARD OF REGENTS.

Representative of Albert College:

F. W. MERCHANT, B A , D.PAED.

Representative of the Ontario Ladies' College:

REV. F. S FAREWELL, B.A.

Representative of Alma College:

REV. P. S. DOBSON, M.A.

Representatives of the Alumni:

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H. W. AIKINS, B.A., M.D.

L. A. KENNEDY, M.A.

F. C COLBECK, B.A.

REV. J. J. FERGUSON, M.A., D.D.

REV. W. B CREIGHTON, B.A., D.D.

F. H. CLARKE, B.A.

H. W. GUNDY, B A.

ADMINISTRATIVE OFFICIALS

President.....REV. R. P. BOWLES, M.A., D.D., LL.D.

Dean of the Faculty of Arts.....J. C. ROBERTSON, M.A.

Dean of the Faculty of Theology. REV. J. F. McLAUGHLIN, B.A.

Registrar.. . . . C. E. AUGER, B.A.

Librarian.....A. E. LANG, M.A.

Bursar.. . . .REV. F. LOUIS BARBER, M.A., PH.D.

Secretary of the Faculty.....N. W. DEWITT, B.A., PH.D.

Secretary of the Faculty of Theology.....REV. W. A. POTTER, M.A., B.D.

Dean of Residence.. . . .C. V. MASSEY, M.A.

Senior Tutor in Residence.....G. M. SMITH, M.A.

Dean of Women Students.. . . . Miss M. E. T. ADDISON, B.A.

Treasurer.....W. E. RUNDLE, ESQ.

GENERAL REGULATIONS AND ANNOUNCEMENTS
FOR STUDENTS IN ARTS

ADMISSION

Students are admitted to registration in the Faculty of Arts on having passed the Matriculation examination prescribed by the University of Toronto, or on giving the Faculty satisfactory evidence of their ability to pursue the course of study proposed. They are required to observe the general regulations of the University of Toronto and of Victoria College in regard to attendance on lectures and examinations.

EXAMINATIONS

No student may present himself for any University examination subsequent to matriculation without having complied with all the requirements of his college affecting his admission to such examination.

OCCASIONAL STUDENTS

Occasional students may be admitted to lectures on application.

Certificates of attendance on lectures in any department during an academic year may be given to occasional students who have been regular in their attendance and who have passed the examinations in such department.

TERMS

The term will not be allowed to students who have been reported to the President by any Professor as neglecting to attend the required lectures, or who have not conformed to the statutes and regulations of the College.

INSTRUCTION

Instruction in the various subjects of the Arts course is given by the Arts Faculty of the University of Toronto and the Arts Faculty of Victoria College. Instruction in the Religious Knowledge options is given by the Theological Faculty of Victoria College.

COLLEGE EXAMINATIONS

Students are required to attend all examinations prescribed by the Professors and Lecturers in their departments.

Prizes and honours are awarded on the recommendation of the Professors and Lecturers, in accordance with the requirements prescribed by them in their several departments.

FEES

The fees required to be paid by students enrolled in Victoria College are those prescribed by the Governors of the University of Toronto. Enrolment fees are paid to the Fees Clerk of the College; all other fees are paid to the Bursar of the University of Toronto.

DISCIPLINE

All students enrolled in Victoria College are subject to the regulations as to discipline prescribed by the Council of the Faculty of Arts of the University of Toronto.

Students are required to attend the lectures, as well as the examinations on all subjects necessary for students of their course and standing. Compliance with this rule will be required as a condition of admission to examination by the University unless dispensation has been obtained.

All interference with the personal liberty of the student, by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence is forbidden by the Faculty. Any student convicted of participation in such proceedings will forfeit the certificate required for admission to the University examinations, and will render himself liable to expulsion from the College

RELIGIOUS SERVICES

Morning prayers are held daily except Saturday and Sunday in the Chapel, at which all students are expected to be present. Other religious services will be held at suitable times, to which all students are cordially invited.

LIBRARIES, MUSEUMS, ETC.

The students of Victoria College, besides having the use of the University of Toronto Library and the various Laboratories of the University, have free access to the Victoria University Library, which consists of a working collection of 30,000 bound volumes on the English, Latin, Greek, French and German languages and literatures, History, Philosophy and the various departments of Theology.

The College has loaned to the Royal Ontario Museum its mineralogical, palaeontological and biological collections, as well as its collection of Egyptian and Indian relics.

STUDENTS NOT IN RESIDENCE

All students who do not reside in any one of the Residences or who do not reside with their parents or with such persons as their parents or guardians direct, are recommended to board and lodge in such houses as are approved by the President of the College. A carefully selected list of boarding-houses, where board and rooms may be obtained, is prepared each year by the Young Men's Christian Association. Students will be expected to observe proper hours and to maintain the conduct of Christian ladies and gentlemen.

THE RESIDENCE FOR MEN STUDENTS

The Residence buildings comprise one hundred and sixteen bed-sitting rooms, and in each house there is a Common-Room with a fire-place on the ground floor, as well as a bedroom and sitting-room for the Tutor in Residence. About fifteen bedrooms have fire-places, and in one house there are two suites, each consisting of a bedroom and a study.

The Hall, known as Burwash Hall, is capable of seating 200 persons at meals. Used as a hall for lectures, it will seat about 700.

All inquiries should be addressed to the Dean of Residence, Victoria College, Toronto, from whom can be obtained further information.

THE RESIDENCES FOR WOMEN STUDENTS

The Residences for Women Students, Annesley Hall and other houses, furnish residence for one hundred and eleven women students of Victoria College.

Applications for rooms must be accompanied by a deposit fee of \$10, which will be refunded if the application is withdrawn before September first. Fees are payable half on the first of October and half on the first of February.

Further information may be obtained by writing to the Dean of Women Students, Annesley Hall, Queen's Park, Toronto.

MEDALS, SCHOLARSHIPS, AND PRIZES, 1921

FACULTY OF ARTS

The awards marked with an asterisk (*) are made by the University; the others (based also on University Examinations) are College awards.

FOURTH YEAR

*The Governor General's Gold Medal	T. R. S. Broughton
*The James Loudon Gold Medal in Physics	L. W. Rentner
*The Jardine Memorial Prize (English Verse)	H. D. Langford, B.A.
The Prince of Wales Gold Medal (1st in General Proficiency)	J. W. Button
The Prince of Wales Silver Medal (2nd in General Proficiency)	No award
The Governor-General's Silver Medal (1st in Honour English)	T. R. S. Broughton (ranked)
The Edward Wilson Gold Medal (Classics)	T. R. S. Broughton
The S. H. Janes Silver Medal (Classics)	No award
The J. J. MacLaren Gold Medal (Moderns)	Miss F. E. Rodman
The S. H. Janes Silver Medal (Moderns)	Miss M. H. R. Powers
The J. Reginald Adams Gold Medal (Political Science)	No award
The J. Reginald Adams Silver Medal (Political Science)	No award
The E. J. Sanford Gold Medal (Philosophy)	No award
The S. H. Janes Silver Medal (Philosophy)	No award
The S. H. Janes Silver Medal (Mathematics)	L. W. Rentner
The Geo. A. Cox Gold Medal (Natural Science)	A. E. R. Westman
The S. H. Janes Silver Medal (Natural Science)	H. D. Brown
A Silver Medal (Biology)	N. B. Laughton
A Silver Medal (Chemistry and Mineralogy)	K. L. Wismer
A Silver Medal (Chemistry and Mineralogy)	W. L. Swanson
A Silver Medal (Geology and Mineralogy)	H. F. Swann
The Reginald Heber Manning Jolliffe Gold Medal (Honour English)	No award
The W. J. Robertson Prize (Canadian Constitutional History)	M. J. Ayeart

THIRD YEAR

*The Anna Howe Reeve Prize (Household Science)	Miss K. E. Bennett
*The Daniel Wilson Scholarship (Biology and Physical Sciences)	J. H. Couch
The George John Blewett Scholarship (Philosophy)	No award
The Hodgins Prize (Pass English)	No award

The Hamilton Fisk Biggar Scholarship (Pass Course)	S N F Chant
The Reginald Heber Manning Jolliffe (English)	J C Eastcott

SECOND YEAR

*The John Macdonald Scholarship (Philosophy).	S J. Mathers
*The Edward Blake Scholarship (Biology and Physical Sciences)	G R. Balfour
The Classical Scholarship	Miss R. V Kendrick
The Webster Prize (Pass English)	F G. Ward
The Robert Johnston Prize (Pass Hebrew)	T. C. Wilkinson
The Orientals Scholarship	F. G. Ward
The Essa Vandusen Dafoe Scholarship (French)	H. W. Hilborn
The Hamilton Fisk Biggar Scholarship (Moderns)	H. W. Hilborn
The Hamilton Fisk Biggar Scholarship (Philosophy, English and History)	C. C. Oke
The Hamilton Fisk Biggar Scholarship (Household Economics)	Miss M. E Craig

FIRST AND SECOND YEARS

The Regents' Prizes (English Essays)	1. F. G. Ward 2. Miss E Howard
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FIRST YEAR

*The First Alexander T Fulton Scholarship (Natural and Physical Sciences)	O. C. H. Kitching
The Robertson Scholarship (Classics)	Miss I F Irwin
The A. P Misener Scholarship (Orientals)	E W. Hart
The Class of 1902 Prize (Pass English)	Miss R. J. Stewart
The Hamilton Fisk Biggar Scholarship (Moderns)	Miss H. G. McKay
The Hamilton Fisk Biggar Scholarship (Household Economics)	Miss M. B. R. Fawcett
The Hamilton Fisk Biggar Scholarship (Pass Course)	R. E Gosse

ALL THE YEARS

The Lincoln G. Hutton Scholarship (English Essay)	F. G. Ward
The Lily Denton Keys Prize (English Essay)	D. G. Creighton

JUNIOR MATRICULATION, 1920

The Flavelle Scholarship (Classics)	Miss I. F. Irwin
The W. E. H. Massey Scholarship (Classics)	No award

JUNIOR MATRICULATION, 1921

The Flavelle Scholarship (Classics)	Miss R. I. Jenking
The W. E. H. Massey Scholarship (Classics)	E. S. Livermore

AFFILIATED COLLEGES

ALBERT COLLEGE
BELLEVILLE, ONT.

FOUNDED, 1854.

FACULTY

THE REV. E. N. BAKER, M.A., D.D., *President*.ELLA GARDINER, B.A., *Lady Principal*.R. J. F. STAPLES, B.A., *Secretary*.

D. H. BLATCHFORD, B.A.

S. F. MAINE, B.A., B.D.

ORY A. SHAW, M.A.

OLIVE RUSSELL.

MINNIE PARKS.

F. H. HENRY

JEAN RAMSAY, B.A.

VICTORIA BURLEIGH.

V. P. HUNT, A.A.G.O.

S. M. ANGLIN, B.A.

ELIZABETH POTTER, MUS BAC.

JESSIE TUITE.

BARBARA CRAWFORD.

MRS. JEAN BAKER.

COURSES OF STUDY

- I. Collegiate Course, embodying elective undergraduate studies.
- II. Junior and Senior Matriculation in Arts, Engineering, Law, Medicine and Theology.
- III. Teachers' Course, to prepare for teachers' examinations.
- IV. Preliminary Course, as prescribed by the General Conference of the Methodist Church.
- V. Depts. of Religious Education.
- VI. Business College Course, comprising Theoretical and Practical Bookkeeping, Practical English, Shorthand and Typewriting.
- VII. Musical Course in Musical Academy, comprising Pianoforte Course, Organ Course, Post Graduate Course and Voice Culture.
- VIII. Courses in Elocution, Physical Culture and Deportment.
- IX. Course in Fine Arts, embracing Painting, Drawing, etc.
- X. Alexandra Ladies' College Course, leading to the M.L.A. and M.M.L.

ALMA COLLEGE
ST. THOMAS, ONT.

OPENED, 1881.

ADMINISTRATIVE OFFICERS

SAMUEL DWIGHT CHOWN, M.A., D.D., LL.D.	<i>President of Board.</i>
W. H. MURCH	<i>Chairman of Executive.</i>
P. S. DOBSON, M.A. (Oxon.)	<i>Principal.</i>
ROBERT I. WARNER, M.A., D.D.	<i>Principal Emeritus.</i>
MARGARET SHIPLEY	<i>Office Secretary.</i>
MRS. P. S. DOBSON, B.A.	<i>Dean of Residence.</i>
MRS. P. A. ALLISON.	<i>Nurse and Matron.</i>

LITERARY DEPARTMENT

P. S. DOBSON, M.A.	<i>Bible and Latin.</i>
ROBERT I. WARNER, M.A., D.D.	<i>Psychology.</i>
MARION HIGGINS, B.A.	<i>English, History.</i>
RUTH WOODWORTH, B.A.	<i>French, Latin.</i>
ILA GILES, M.A.	<i>Mathematics, Science.</i>
MARY VALLENTYNE	<i>Preparatory Studies.</i>
RUTH HOPKINS	<i>Preparatory Studies.</i>

MUSIC

THOMAS MARTIN, <i>Director</i>	<i>Pianoforte, Concert Solos.</i>
STANLEY OLIVER	<i>Organ, Harmony, Choral, Vocal.</i>
HARRIET A. JOLLIFFE, A.A.C.M.	<i>Pianoforte.</i>
ISABEL STEVENS	<i>Pianoforte.</i>
HELENE ALLEN, L.T.C.M.	<i>Violin.</i>
MILDRED CARSE, L.T.C.M.	<i>Pianoforte.</i>
MIRIAM EDMISTON.	<i>Pianoforte.</i>
CATHERINE REEKIE.	<i>Pianoforte.</i>

FINE ARTS

EVA ST. THOMAS SMITH.	<i>Painting, Modelling and Sketching.</i>
S. M. MCKAY.	<i>China Painting.</i>
N. J. THOMAS	<i>Collegiate Art.</i>

COMMERCIAL SCIENCE

ELVA FOREMAN	<i>Bookkeeping, Phonography, Typewriting and Penmanship.</i>
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ELOCUTION AND PHYSICAL CULTURE

MARIAN HENRY CONNOR, A.T. C.M., *Reading, Expression, Physical Culture.*

FRANCES WHITE, *Reading, Expression, Physical Culture.*

HOUSEHOLD SCIENCE

HELEN THOMSON, *Cookery, Dietetics, Sewing.*

DIPLOMA COURSES

- (a) M.E.L., embracing University Junior and Senior Matriculation, with options and additional subjects in Bible Study, English, etc.
- (b) Music (Piano, Organ, Voice or Violin).
- (c) Fine Art.
- (d) Elocution and Physical Culture.
- (e) Commercial and Shorthand.
- (f) Household Science.



TRINITY COLLEGE.

TRINITY COLLEGE

I. TRINITY COLLEGE, WITH RESIDENCE FOR MEN

J. A. WORRELL, K.C., M.A., D.C.L., *Chancellor*.

THE REV. T. C. STREET MACKLEM, M.A., D.D., LL.D., D.C.L., *Vice-Chancellor and Provost*.

A. H. YOUNG, M.A., D.C.L., *Dean of Residence*.

W. A. KIRKWOOD, M.A., PH.D., *Registrar*.

REV. H. T. F. DUCKWORTH, M.A., *Dean of the Faculty of Arts*.

REV. F. H. COSGRAVE, M.A., B.D., *Dean of Divinity*.

REV. F. H. COSGRAVE, M.A., B.D., *Dean of the Faculty of Divinity*.

R. E. L. KITTREDGE, M.A., *Librarian*.

SYDNEY H. JONES, ESQ., *Bursar*.

II. ST. HILDA'S COLLEGE—RESIDENCE FOR WOMEN

MISS M. CARTWRIGHT, B.A., *Principal and Dean of Women Students*.

MISS L. C. SCOTT, M.A., *Assistant*.

MISS COTTERILL, *Assistant*.

SYDNEY H. JONES, ESQ., *Bursar*.

Trinity College, which entered into federation with the University of Toronto on the first day of October, 1904, was founded by the Honourable and Right Reverend John Strachan, D.D., LL.D., first Bishop of Toronto, one of the founders, and at one time President, of King's College. It was established, after the secularisation of King's College in 1850, for the purpose of combining religious instruction with a liberal education.

In 1851 Trinity College was incorporated by the Legislature of Canada. In 1852 a Royal Charter conferred upon it University powers, which were exercised in all Faculties down to 1904, under the style of the University of Trinity College. Since 1904 Trinity College has conferred degrees only in the Faculty of Divinity.

For a certain period state aid was granted to it in common with the other Universities of the Province, but this was subsequently withdrawn. In 1874 the question of federation was mooted, but no serious attempt at a solution was made till about the year 1885; and it was not till nearly twenty years later that satisfactory terms of federation were finally concluded.

Under the Federation Agreement, the degrees in Arts are conferred by the University of Toronto, the instruction being given by Trinity College in all College subjects, and by the University in the remaining subjects of the Arts curriculum, and Trinity College students having access without extra fees to the University classes and laboratories. In the Faculty of Divinity, Trinity College continues to exercise the functions of an inde-

pendent University, having no relation to the University of Toronto in respect of degrees in this Faculty.

St. Hilda's College was founded in 1888 by the Rev. Dr. Body, the second Provost of Trinity College, to provide a residence for the women students of Trinity College, together with instruction in certain subjects of the Arts course. Later such instruction was discontinued in favour of complete co-education, St. Hilda's continuing to be the residence for women students of Trinity College.

Religious instruction for all its students in Arts having been one of the chief reasons for the foundation of Trinity College, this still remains one of its distinguishing features, the federation agreement with the University of Toronto preserving this right in perpetuity to all students of Trinity College.

Residence is another advantage offered by the College, accommodation being provided for about 100 men students. Here they come into close contact daily with one another and with the members of the staff, both resident and non-resident. In this way one very important element in education is provided.

The women students attend lectures with the men, and reside in St. Hilda's College, which is conveniently situated in the Trinity College grounds, and offers to women all the advantages which are offered to men by the residence of Trinity College. All the women students, resident and non-resident, come under the supervision of the Dean of Women Students, Miss M. Cartwright, B.A., who is also Principal of St. Hilda's College. St. Hilda's Lodge, which adjoins the main building, is under the immediate charge of Miss L. C. Scott, M.A. These two buildings provide residence accommodation for about fifty students.

On week days both men and women attend the morning and evening services of the Chapels of their respective colleges. On Sundays they attend the Trinity College Chapel together, this latter regulation applying to residents and non-residents alike.

Though the College belongs to the Church of England, it is open without religious tests to members of other communions. They are allowed to absent themselves from the Chapel services on Sundays on stating to the Provost their intention to attend a church of their own denomination, on the understanding that they will present a certificate of attendance, so as to satisfy the College regulations in this respect.

Members of other communions are not required to take the courses of study prescribed in the Church Catechism and the Prayer Book, but are allowed to substitute for them courses in Church History, the Evidences of Christianity, or Christian Ethics.

All students are required to keep term in lectures and chapels, and upon enrolling are placed under promise to obey the rules and regulations of the College.

Tuition (or registration) fees for regular and special students are the same as are paid in the other Colleges and are payable to the Bursar of Trinity College.

Particulars as to the amount of board fees, room rents, and the like may be obtained by applying to the Provost or the Dean of Residence.

HAZING

Every student of Trinity College is required to sign the following declaration:—

"I do solemnly promise, that so long as I remain a student of this College—

1. I will discountenance all proceedings commonly known as hazing and will do my utmost to promote a healthy tone of feeling against them.

2. And, in particular, I will not interfere in any way with the personal liberty of any student, as, for example, by entering into, or remaining in, his room against his will; and I will not subject any student, or countenance his being subjected, to any indignity of any kind whatsoever.

These promises I make, fully understanding that any violation of them will render me liable to immediate expulsion from the College."

UNIVERSITY DISCIPLINE

Every regular student of Trinity College must conform to the regulations of the University when in attendance upon University lectures and examinations. He must also pay the Library fee and other University fees to the Bursar of the University.

KEEPING TERMS

The College regulations require regular attendance at Lectures and at the services of the College Chapel, a minimum of 50 per cent in the case of Chapel services, and of 80 per cent. in the case of Lectures being necessary to the keeping of term.

Students in Arts who fail to keep their term, or are regarded as being otherwise unsatisfactory in respect of their work or conduct, will not be certified to the Registrar of the University for admission to the Annual Examination of the University in May.

NON-MATRICULATED STUDENTS

Students may be admitted to College by the Provost without matriculation if he deems them to be sufficiently advanced in their studies to profit by the lectures.

GOVERNMENT OF THE COLLEGE

By the provisions of the Royal Charter, the government of the University of Trinity College is vested in the Corporation, which body, by an Act of the Legislature of the Province of Canada (15 Vict. ch. 32), is composed of: 1. The Bishops of the six Dioceses into which the original Diocese of Toronto has been divided, 2. The Trustees, 3. The Council.

The Council is made up of the following classes of members.

EX OFFICIO MEMBERS

The Chancellor and ex-Chancellors of the University of Trinity College, the Provost, the Deans of Residence, Arts, and Divinity, the Registrar of Trinity College, the Chairman of Convocation, and the Headmaster of Trinity College School, Port Hope.

MEMBERS NOMINATED

By the Synod of each Diocese of the Province of Ontario, two clergymen and two laymen.

By the Bishops of Ottawa, Algoma, Ontario, Huron, Toronto and Niagara, four members each, representing their respective Dioceses, or two only, if the Synod of the Diocese elects members.

By each Medical, Musical, or Theological College affiliated with the University of Trinity College, one member.

MEMBERS ELECTED

By the College Committee, one of the professors.

By the graduates in Arts and Divinity who are members of Convocation (see below) eight members, to hold office for four years, two retiring annually.

By the graduates in Law two members, to hold office for two years, one retiring annually.

By the graduates in Medicine who are members of Convocation two members, to hold office for two years, one retiring annually.

By the associate members of Convocation (see below) two members, to hold office for two years, one retiring annually.

By the sustaining members of Convocation, two members, to hold office for two years, one retiring annually.

By the whole Corporation ten members, elected for four years, of whom at least two shall be engaged in educational work in the High School system of the Province.

CHANCELLOR

J. A. WORRELL, K.C., M.A., D.C.L.

VICE-CHANCELLOR

THE REV. CHARLES ALLEN SEAGER, M A., D D

THE CORPORATION

THE BISHOPS

THE MOST REVEREND THE LORD BISHOP OF ALGOMA.
THE RIGHT REVEREND THE LORD BISHOP OF HURON.
THE RIGHT REVEREND THE LORD BISHOP OF TORONTO.
THE RIGHT REVEREND THE LORD BISHOP OF NIAGARA.
THE RIGHT REVEREND THE LORD BISHOP OF OTTAWA.
THE RIGHT REVEREND THE LORD BISHOP OF ONTARIO.

TRUSTEES

THE HONOURABLE FEATHERSTON OSLER, K.C., D.C.L.

COUNCIL

Ex Officio Members.

THE CHANCELLOR OF THE UNIVERSITY OF TRINITY COLLEGE, K.C., M.A., D.C.L.; THE REVEREND THE PROVOST OF TRINITY COLLEGE, M.A., D.D.; THE DEAN OF RESIDENCE, M A., D.C.L.; THE REGISTRAR OF THE UNIVERSITY OF TRINITY COLLEGE, M.A., PH.D.; THE REVEREND THE DEAN OF THE FACULTY OF AROT, M.A., THE REVEREND THE DEAN OF THE FACULTY OF DIVINITY, M A , B.D.; W. H. PEPLER, M D , C.M , L.R.C P., CHAIRMAN OF CONVOCATION; THE REVEREND F. GRAHAM ORCHARD, M A. (*Cantab.*), D D., Headmaster of Trinity College School, Port Hope.

Representative Elected by the Staff.

J. N. WOODCOCK, M.A , *Professor of Latin.*

Elected by the Corporation.

THE REV. PROFESSOR C. J. S. BETHUNE, M.A , D C.L., Guelph
MAJOR-GEN. SIR HENRY M PELLATT, C V O., D.C.L., Toronto.
SIR EDMUND OSLER, Toronto.
PETER PERRY, M.A , Fergus.
J. A. HOUSTON, M.A., Toronto.
KIRWAN MARTIN, M.A , Hamilton.
A. H. CAMPBELL, B.A. (*Tor.*), Toronto.
ELMES HENDERSON, M.A., Toronto.
LIEUT.-COL. HENRY BROCK, D.C.L., Toronto.
JOHN CATTO, ESQ., Toronto.

Nominated by the Archbishop of Algoma.

THE VENERABLE GOWAN GILMOR, D D , Sault Ste. Marie, *Archdeacon of Algoma.*

THE REVEREND CANON PIERCY, Sturgeon Falls.

THE REVEREND CANON BURT, L TH , Parry Sound

THE REVEREND F. H HINCKS, M.A., Haileybury.

Nominated by the Bishop of Huron.

THE VENERABLE ARCHDEACON FOTHERINGHAM, M.A., Brantford.

Elected by the Synod of Huron.

THE REVEREND CANON DAVIS, M A , Sarnia.

HIS HONOUR JUDGE HARDY, Brantford.

Nominated by the Bishop of Toronto.

THE REVEREND CANON PLUMPTRE, M A., Toronto.

THE REVEREND CANON RIGBY, M.A., LL.D , Port Hope.

THE HONOURABLE MR. JUSTICE ORDE, Toronto.

Nominated by the Bishop of Niagara

THE VERY REVEREND D. T. OWEN, L.TH., D.D., Hamilton, *Dean of Niagara.*

W. M. BRANDON, B.A., B.C L., Hamilton.

Elected by the Synod of Niagara.

C. S. SCOTT, ESQ., Hamilton, and THE REVEREND CANON BROUGHALL, M.A., St. Catharines, to hold office to 1922.

THE REVEREND R. H. FERGUSON, M.A., B.D., Hamilton, and E. T. LIGHTBOURN, ESQ., Oakville, to hold office to 1923.

Elected by the Synod of Ottawa.

THE REVEREND CANON ANDERSON, L.TH., Ottawa.

CHAS. MORSE, K.C., D.C.L., Ottawa.

THE REVEREND J H. DIXON, M.A., B.D., Ottawa.

J. S. L. McNEELEY, ESQ., Perth.

Nominated by the Bishop of Ontario.

THE VERY REVEREND G. L. STARR, M.A., D.D., Kingston, *Dean of Ontario.*

THE VENERABLE G. R. BEAMISH, M.A., Belleville, *Archdeacon of Ontario.*

Elected by the Synod of Ontario.

LIEUT.-COL. H. H. ALGER, M.D., C.M., F.T.M.C., Stirling.

W. B. CARROLL, K.C., M.A., Gananoque.

THE REVEREND JOHN LYONS, M.A., B.D., Lyn.

THE REVEREND J. H. H. COLEMAN, M.A., Napanee.

Nominated by Trinity Medical College.

G. A. BINGHAM, M.D., C.M., Toronto.

Nominated by the Ontario Medical College for Women

R. B. NEVITT, B.A., M.D., C.M., Toronto.

Nominated by the Toronto Conservatory of Music.

ALBERT HAM, Mus.Doc., F.R.C.O., Toronto.

*Elected by Convocation.**(a) Graduates in Arts and Divinity.*

R. B. BEAUMONT, M.A., Toronto, and THE REVEREND WALTER H. WHITE, M.A., Toronto, to hold office to 1922.

COL. C. S. MACINNES, C.M.G., K.C., M.A., Toronto, and THE REVEREND CANON PLUMMER, L.Th., Toronto, to hold office to 1923.

THE REVEREND CANON J. S. BROUGHALL, M.A., Toronto, and G. C. HEWARD, M.A., Toronto, to hold office to 1924.

THE REVEREND R. C. BLGRAVE, B.A., D.D., Peterborough, and R. J. READE, M.A., M.D., C.M., Toronto, to hold office to 1924.

(b) Graduates in Law.

D. T. SYMONS, K.C., B.C.L., Toronto, to hold office to 1922.

THE HONOURABLE MR. JUSTICE HODGINS, Toronto, to hold office to 1923

(c) Graduates in Medicine.

HENRY CRAWFORD SCADDING, M.A., M.D., C.M., Toronto, to hold office to 1922.

FRED LEM GRASSETT, M.B., C.M., Toronto, to hold office to 1923.

(d) Elected by Associates of Convocation.

F. GORDON OSLER, Esq., Toronto, to hold office to 1922.

JOHN C. WEDD, Esq., Toronto, to hold office to 1923.

(e) *Elected by Sustaining Members of Convocation.*

P. A. MANNING, Esq., Toronto, to hold office to 1922.

C. M. BALDWIN, M. A., Toronto, to hold office to 1923.

Elected by the Alumnae Association of St. Hilda's College.

MAJOR G. B. STRATHY, M. A., to hold office to 1922.

M. McLAUGHLIN, Esq., to hold office to 1923.

SECRETARY AND BURSAR

SYDNEY H. JONES, Esq.

HONORARY TREASURER

MAJOR-GEN. SIR H. M. PELLATT, C.V.O., D.C.L.

AUDITORS

REV. C. A. SEAGER (*honorary*)

MESSRS. LAWSON, WELCH and CAMPBELL, *Chartered Accountants.*

COMMISSION OF POLICY AND BUILDINGS

COL. H. C. OSBORNE, C.M.G., Ottawa, *Chairman.*

GERALD R. LARKIN, Toronto, *Vice-Chairman.*

VAUGHAN MACLEAN HOWARD, Toronto, *Secretary*

The Chancellor.

Wilmot L. Matthews

Chairman of Convocation.

George W. Morley.

The Provost.

George H. Armstrong.

Sir Henry Pellatt

R. H. Parmenter.

Dr. A. H. Young.

G. Larratt Smith.

Col. C. S. MacInnes, C.M.G.

V. R. Smith.

Lt.-Col. Henry Brock.

Norman Sommerville.

Major-General J. T. Fotheringham, C.M.G.

W. A. Child (Hamilton).

Major G. B. Strathy.

Charles Bell (Hamilton).

Dr. R. J. Reade.

Gordon Reid (Hamilton).

D. T. Symons, K.C.

C. S. Scott (Hamilton).

A. H. Campbell.

Archdeacon Snowdon (Ottawa).

Sydney H. Jones.

Hamnet P. Hill, M.P.P. (Ottawa).

Angus Macdonald.

F. W. Fee (Ottawa).

P. A. Manning.

Graham Campbell, Esq. (Toronto).

Dr. D. J. Goggin (Toronto).

CONVOCATION

Convocation, as at present organized, consists (in addition to the Chancellor, the Provost, the Vice-Provost, and the Professors of Trinity College) of all graduates who pay an annual fee of five dollars or upwards. It has been placed by the Corporation in the position of a Standing Committee of that body; and its members are in this way enabled, through their representatives, formally to lay their resolutions before the governing body of the University. Moreover, it is represented by fourteen members on the Corporation. (See above.) The Chairman is *ex officio* a member of the Corporation.

An annual meeting for the transaction of business is held every year in the Michaelmas Term.

Friends of the University who are not graduates may become associate members of Convocation by the same annual payment of five dollars or upwards. Subscribers of a hundred dollars and upwards annually are known as sustaining members upon their election by the Executive Committee of Convocation.

Associate and Sustaining Members have the right of speaking and of voting at annual and other meetings of Convocation. They also elect annually a member of the Council.

The Chancellor of the University of Trinity College is elected for a period of five years by the graduate members of Convocation in good standing.

The Caput of Convocation, before which degrees are passed and conferred, consists of the Vice-Chancellor and four members of Convocation, to be elected by Convocation at the annual November meeting.

Since federation the only degrees conferred by the University of Trinity College are those in the Faculty of Divinity.

CHAIRMAN OF CONVOCATION

W. H. PEPLER, M.D., C.M., L.R.C.P.

CLERK OF CONVOCATION

THE REVEREND S. CHILDS, B.A., B.D.

EXECUTIVE COMMITTEE

(1) *Ex officio Members*—The Chancellor, the Chairman, the Clerk, the Provost, the Vice-Provost, The Dean of Residence, The Registrar of the University of Trinity College, the Dean of the Faculty of Arts, the Dean of the Faculty of Divinity, and former Chairmen of Convocation—J. A. Worrell, M.A., K.C., D.C.L.; D. T. Symonds, K.C., B.C.L.; R. B. Beaumont, M.A.; and D. J. Goggin, M.A., D.C.L.

(2) *Elected Members:*

C. M. Baldwin, M.A.,	Hon. F. E. Hodgins, B.C.L.,
The Rev. Canon W. J. Brain, M.A.	L. C. A. Hodgins, M.A.
Miss M. Cartwright, B.A.,	Sydney H. Jones, Esq.,
Frank Darling, LL.D.,	A. Angus Macdonald, M.A.,
Philip Dykes, Esq.,	J. C. Wedd, Esq.
G. C. Heward, M.A.,	The Rev. W. H. White, M.A.

SCHOLARS AND PRIZEMEN

1921

ARTS

FOURTH YEAR—

H.E. the Governor-General's Silver Medal for the Best Degree—
Miss R. M. Nevill.

H.E. the Governor-General's Bronze Medal for Headship of St.
Hilda's College—Miss E. F. Dixon.

The Jubilee Scholarship—(J. Lowe), W. A. Brown.

The Prince of Wales Prize for the Highest First Class Honours in
Classics—C. E. Phillips.

THIRD YEAR—

The Prince of Wales Prize for the Highest First Class Honours in
Classics (Special Award)—J. Lowe.

SECOND YEAR—

The Burnside Scholarship in English and History—J. D. Ketchum.

GENERAL—

The Prize for an English Poem—Miss D. M. Sanders.

JUNIOR MATRICULATION

1921

No awards

DIVINITY CLASS PRIZE LIST

1921

FOURTH YEAR—

General Proficiency—J. S. Ditchburn, B.A.

Dogmatic Theology—C. A. Bender.

THIRD YEAR—

General Proficiency—A. B. Browne.

Church History—T. F. W. dePencier, B.A.

BOTH YEARS—

- Greek Testament*—C. A. Bender
Hebrew—No award.
Apologetics—No award.
Old Testament—J. S. Ditchburn, B.A.
New Testament—C. A. Bender.
Patristics—A. B. Browne.
Liturgics—R. Booth.
Comparative Religion—No award.
Sermon Prize—R. Booth.

MCDONALD PRIZE FOR BIBLE KNOWLEDGE—

1. R. Booth.
2. Mrs. J. S. Ditchburn qualified, but was ineligible.
3. No award.

ESSAY PRIZE—

J. LOWE and C. A. Bender (*æq.*).

THE HAMILTON MEMORIAL PRIZE—

No award.

READING PRIZES—

- College*—The Reverend C. F. Pashler.
Doolittle (for improvement)—H. H. Heard.
Osler—(1) G. N. Luxton, (2) A. B. Browne, (3) J. S. Ditchburn, B.A.,
 and the Reverend R. Melville (*æq.*) qualified, but were ineligible.
 Awarded by reversion to T. F. W. dePencier, B.A.

ST. MICHAEL'S COLLEGE

ST. MICHAEL'S COLLEGE

St. Michael's College was founded in 1852, at the request of the Rt. Rev. Dr. de Charbonnel, then Bishop of Toronto. It was established for the purpose of combining religious instruction with a liberal education.

For a number of years it was granted state aid, in common with the other arts colleges of the Provinces. This came to an end when the Legislature of Ontario finally decided that no financial assistance should thereafter be given to denominational institutions.

In 1881, the College was affiliated with the University of Toronto, an arrangement having been entered into by which students proceeding to the degree of B.A. should attend lectures at University College in all subjects excepting Philosophy and History.

When in 1883-1884 a movement was on foot looking to the federation of every denominational college of the Province with the Provincial University, St. Michael's was the first to accept the terms proposed, and in 1890, federated upon the proclamation of the University Federation Act.

From the commencement it was understood that such arrangements could not be other than experimental, and meanwhile it became more and more apparent that the experiment must end in failure. After a quarter of a century of affiliation and federation, during which time the University population had been multiplied by five or six, there was scarcely any increase in the number of Catholic students attending University College. During those same years, the Catholic Colleges of the Province had been constantly increasing in the number of their students. It was evident that the plan in operation was not of the kind to secure the confidence of the Catholic population. That population evidently would not favour a purely secular education.

In 1905, St. Michael's found itself in a position to enter upon a scheme of providing instruction in all subjects known as "College Subjects", and made application to be admitted to federation on the same terms as Victoria and Trinity Colleges, claiming with them the privilege of free instruction for its students in University subjects. In response to this application, provision was made in the University Act of 1906 for the development of this scheme, upon the completion of which St. Michael's succeeds to the rank and privileges of a "College of the University". This plan has been worked out with the most satisfactory results.

The Catholic Church does not understand education without religious instruction. In St. Michael's, in every year of the student's course, a due proportion of time is reserved for this, and for the preservation of the religious spirit the greater number of the staff is chosen from the ranks of

the clergy. It must be remembered, however, that St. Michael's is purely an Arts College, and has no theological faculty as such.

It is held as a fundamental principle, that the intimate association of students with one another, and with their teachers, contributes as much to true education as do the lecture room and library. In accordance with this, the majority of the students live in residence. The men students reside at St. Michael's College, the women students reside at St. Joseph's College, or Loretto Abbey College, and are subject from the point of view of discipline to the religious communities in charge of these institutions.

ADMINISTRATIVE OFFICERS

REV. H. CARR, B.A.	<i>Superior.</i>
REV. H. S. BELLISLE, M.A.	<i>Director of Studies.</i>
REV. V. J. MURPHY	<i>Bursar.</i>
REV. E. J. McCORKELL, M.A.	<i>Registrar.</i>

SCHOLARSHIP AND PRIZES 1921

FOURTH YEAR—

The M. J. O'Brien Prize for the highest first class honours in Philosophy—No award

The Dockeray Prize to the student ranking highest in Pass English—
A. T. Leacy.

THIRD YEAR—

The Dockeray Prize to the student ranking highest in Pass English—
Miss M. Hannan.

The Kernahan Prize for highest first class honours in Philosophy—
P. J. Bart, R. Dobell, L. Stock.

SECOND YEAR—

The Kernahan Prize for the highest first class honours in Philosophy—
L. Cleary.

The English Prize to the student ranking highest in Pass English—
Miss A. Ballard.

FIRST YEAR—

The English Prize to the student ranking highest in Pass English—
L. Barnett.

Knights of Columbus Scholarships to the four students ranking highest in general proficiency—L. Barnett, G. Keogh, W. Gavard, Miss D. Fleury.

JUNIOR MATRICULATION—

The First Edward Blake Scholarship in Moderns and Science—
Miss B. Larochelle.

The Silver Episcopal Jubilee Scholarship—Miss H. Kernahan.

FACULTY OF MEDICINE

DEGREE OF BACHELOR OF MEDICINE.

1. The thirty-sixth session since the re-establishment of the Faculty of Medicine of the University of Toronto will commence on Tuesday, the 26th of September, 1922.

2. The Degrees in Medicine are Bachelor of Medicine—M.B., Bachelor of Science—B.Sc. (Med.), Doctor of Medicine—M.D., and Master of Surgery—Ch.M.

3. Candidates for the degree of Bachelor of Medicine are required to matriculate and to attend during six sessions of at least eight months each the courses of instruction presented, and to pass examinations taken at the end of each session.

ENTRANCE

4. Details in individual cases as to entrance requirements to the University, may be obtained on application to the Registrar of the University.

Attention is drawn to the raising of the standard of entrance to the Faculty of Medicine which becomes effective in the fall of 1922.

ENTRANCE REQUIREMENTS FOR 1922

5. A candidate for admission to the First Year in the Faculty of Medicine must produce satisfactory certificates of good character and of having completed the seventeenth year of his age on or before the first of October of the year in which he proposes to register; only under exceptional circumstances will a candidate of thirty years or more be admitted.

He must also present certificates giving him *full* credit in the following subjects of Pass and Honour Matriculation:

PART I—PASS MATRICULATION

LATIN (Authors and Composition).

ENGLISH (Literature and Composition).

HISTORY (British and Ancient).

MATHEMATICS (Algebra and Geometry).

EXPERIMENTAL SCIENCE (Physics and Chemistry).

Any one of:

GREEK (Authors and Composition).

FRENCH (Authors and Composition).

GERMAN (Authors and Composition).

SPANISH (Authors and Composition), *or*

ITALIAN (Authors and Composition).

PART II—HONOUR MATRICULATION

ENGLISH (Literature and Composition).

MATHEMATICS (Algebra, Geometry and Trigonometry).

One of:

LATIN (Authors and Composition).

GREEK (Authors and Composition).

FRENCH (Authors and Composition).

GERMAN (Authors and Composition).

6. A candidate possessing a degree in Arts from any recognized University may be considered as having fulfilled the entrance requirements.

7. A candidate coming from a Province of Canada other than Ontario must present certificates of a standard equivalent to that required from students of the Province of Ontario.

8. Students are required to complete above matriculation requirements before being admitted to the course in Medicine.

9. A student who has fully completed the First Year in the Faculty of Arts of the University of Toronto, will be admitted to the First Year in the Faculty of Medicine, provided he has at least Pass Matriculation standing in Experimental Science. No fee will be charged for transferring from the Faculty of Arts to that of Medicine.

APPLICATION FOR EQUIVALENT STANDING

10. Any student of another University or College who desires to be admitted to the Faculty of Medicine of this University with equivalent standing is required first to communicate with the Registrar of the University, forwarding to him a full statement of preliminary education with certificates. After receiving notice from the Registrar that the entrance requirements have been met, the student should send an application to the Secretary of the Faculty of Medicine together with—

(a) A calendar of the University in which he has studied, giving a full statement of the courses of study.

(b) A complete official statement of the course he has followed and the standing obtained in percentage.

(c) A certificate of moral character and conduct.

After submission of this application to the Faculty Council the candidate will be notified as to the decision reached.

No student from a Medical Faculty of another University will be accepted unless his certificates show that he has completed the work and examinations in the subjects for which the certificates are presented.

It should be understood that the programme and regulations regarding courses of study and examinations contained in this Calendar, hold good for this calendar year only, and that the Faculty of Medicine, while fully sensible of its obligations towards the students, does not hold itself bound to adhere absolutely, for the whole six years of a student's course, to the conditions here laid down.

REGISTRATION

11. Students desiring to enter the course in Medicine are required to submit their application form in duplicate along with the certificates on which they claim entrance standing, to the Registrar of the University, in the Main Building, on or before September 1st. After this date each candidate will be notified as to whether his application has been accepted or not, a matriculation card being enclosed to those applicants who are accepted.

12. On presentation of this card on or before the day of registration (September 26th) to the Secretary of the Faculty of Medicine, candidates will be officially registered by him as students in Medicine.

13. Students in the Second and higher years will receive by mail from the Secretary, an application form for registration in the succeeding year. This form must be filled in and forwarded to the office of the Secretary of the Faculty of Medicine on or before September 15th.

14. On September 26th a student must present himself in person for his registration card which gives his number, section and class. No student shall be allowed to register in the Faculty of Medicine after the first day of term. No student shall be admitted to any laboratory or clinical class after its first meeting except at the discretion of the instructor concerned.

15. No student will be permitted to register in the second or any succeeding year until he has completed all the examinations of the preceding year.

16. Only under exceptional circumstances will a student be permitted to repeat his year more than once.

17. Subdivision into sections and clinical classes will be made by the Secretary. Students wishing to be placed in the same section or clinical class must file personally signed applications conjointly with the Secretary on or before June 1st.

ATTENDANCE

18. Students are required to attend lectures and receive practical instruction during each of the six years at this University.

19. A student who fails to do satisfactory term work in any subject is not permitted to present himself for examination until he is able to present satisfactory certificates of term work completed.

20. In cases of students applying for temporary positions in hospitals or for *locum tenens* to physicians, the permission of the Faculty Council must be obtained before they will be allowed to absent themselves from the lectures and laboratory work of the University.

No applications or petitions for exemptions from classes, laboratory work or examinations will be received or considered unless filed at the Secretary's office on or before October 15th of any year.

FEES FOR INSTRUCTION

REGULAR STUDENTS IN MEDICINE

21. All University fees are payable at the Bursar's office in the Main University Building, between the hours of ten and one o'clock, except on Saturday.

22. *Regular Students.* First, Second, Third, Fourth, Fifth and Sixth Years—Annual Fee, including tuition, library, laboratory supply, hospital* and one annual examination—

If paid in full on or before November 10th..... \$150 00

By instalments—

First instalment, if paid on or before November 10th..... 75.00

Second instalment, if paid on or before February 10th..... 78 00

Hart House and Students Administrative Council fee, to be paid

by all men students proceeding to the degree 11.00

Women Students Administrative Council Fee, to be paid by all women students proceeding to the degree.. . . . \$3.00

23. *Combined Courses in Arts and Medicine.*

Annual Fee, including college registration, library, laboratory supply, and one annual examination:

	Arts Fees.	Medical Fees.	Total.
First Year Arts.....	\$57.00		\$57.00
Second Year Arts.....	58 00		58 00
Third Year Arts and Second Year Medicine ..	57 00	\$85 00	142.00
Fourth Year Arts and Third Year Medicine....	62 00	85 00	147.00

The fees for the Fourth, Fifth and Sixth Years in the Faculty of Medicine are as for regular students.

Payment of the Medical portion of the fees—

If paid on or before November 10th. \$85 00

By instalments—

First instalment, if paid on or before November 10th..... 43.00

Second instalment, if paid on or before February 10th..... 44.00

24. Fees for Graduate and Special Courses.

(1) Graduates attending undergraduate courses per month \$10.00

(2) B.Sc (Med.) Course... 100.00

(3) D.P.H. Course..... 150.00

By instalments:

1st instalment at the beginning of the Fall Session 75.00

2nd instalment at the beginning of the Winter

Session..... 75 00

*The composite fee of \$150.00 includes one session's clinical facilities at the Toronto General Hospital, St. Michael's Hospital, or Toronto Western Hospital, and the Hospital for Sick Children, but does not cover the midwifery ticket for the Burnside Lying-in Hospital, which must be obtained there.

Fee for the Diploma.....	20 00
(3) Short Course in Radiology.. . . .	100.00
(4) Diploma in Radiology	400.00
(5) Undergraduates taking Summer Course in clinical subjects, per course.....	20 00
Three or more courses.....	50.00

25. All of the above fees are payable in advance. After November 10th, a penalty of \$1 00 per month will be imposed until the whole amount is paid. In the case of payment by instalments the same rule as to penalty will apply. A student will not be admitted to any of the University lectures or laboratories who is in arrears for his fees.

26. General Fees.

Matriculation, or registration of Matriculation.....	\$5.00
Supplemental examinations.....	10.00
Admission <i>ad eundem statum</i>	10.00
Degree of M.B.....	20.00
Degree of B.Sc. (Med)	10.00
Admission <i>ad eundem gradum</i>	20.00

In the case of candidates for the Final Examinations, the fee for the degree must be paid to the Bursar not later than the 20th of March.

HART HOUSE AND THE STUDENTS ADMINISTRATIVE COUNCIL

27. The annual fee...	\$11.00
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Every male student in attendance, proceeding to a Bachelor's degree in the Faculty of Medicine, is required to pay to the Bursar at the time of the entry of his name with the Secretary, the annual fee of eleven dollars for the maintenance of Hart House and the Students Administrative Council.

WOMEN STUDENTS ADMINISTRATIVE COUNCIL FEE

28. The Annual Fee.....	\$3 00
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Every woman student in attendance, proceeding to a Bachelors degree in the Faculty of Medicine, is required to pay to the Bursar at the time of the entry of her name with the Secretary, the annual fee of three dollars for the maintenance of the Women Students Administrative Council.

PHYSICAL TRAINING FEE

29. Every male student in attendance proceeding to a Bachelor's Degree in the Faculty of Medicine is required to pay to the Bursar the annual Physical Training fee of \$5.00 at the opening of each session in which Physical Training is compulsory for that Student.

MEDICAL SOCIETY FEE

30. Every student in attendance proceeding to a Bachelor's Degree in the Faculty of Medicine is required to pay to the Bursar at the opening of the Session, an annual fee of \$2.00 for the maintenance of the Medical Society.

INSTRUCTION

31. The course of instruction given by the Faculty of Medicine consists of six sessions of eight months each, preparing students for the degree of M.B.

32. The course is so framed that the requirements of the various Provincial Licensing bodies are fulfilled and it aims at giving the student such a training in the sciences as is now exacted of all those who desire to obtain any British Medical qualification in addition to a Canadian one

The Senate of the University of Toronto determined that the increase in the length of the undergraduate course in medicine from five to six years should go into effect in the Autumn of 1919 (Session 1919-1920.) All students entering on or after this date will be required to proceed in the Six Years' Course. There will therefore be no Third Year of the Five Years' Course during Session 1922-1923.

INSTRUCTION IN SIX YEARS' COURSE

33. The student of Medicine is reminded that during his years of study he is preparing himself to enter a profession which presents manifold and diverse aspects. No prescribed course of study of practicable length can by any possibility fit the student for all of the special careers which the profession of medicine offers. The curriculum provided by the Faculty of Medicine is designed to furnish a framework of knowledge and technical skill which will adequately equip all students for the general practice of medicine and its branches, the time allotted for this purpose, in every subject of the course, being well in excess of that required as the minimum by examining boards and Universities in this and other countries. The six years' curriculum, however, also provides for the student filling in and amplifying his regular work with special studies that are designed either to broaden his general education, and therefore make him better fitted for the practice of medicine, or to enable him to undergo, in certain of the subjects of the curriculum, a somewhat more intensive training than is essential for all students, so as to prepare him for some particular type of medical career. To enable the student to accomplish these purposes a number of hours of optional study are prescribed, the precise subjects of study being largely left to the student's choice. It is, however, expected that this choice will not be aimless, but made of set purpose and designed to some particular end.

It will be of decided advantage to the student to form some conception of the general type of medical career which he desires to follow at an early period in his course. This is particularly so when a career in laboratory investigation (and teaching), hygiene or psychiatry is thought of. This choice should be made with great care, and only after a thorough in-

vestigation of the work involved. But it may be pointed out that it would not handicap a student if he should decide after trial of one type of course to change to another.

During the *first year* only a limited number of optional hours are available. The student who, upon entering the Faculty of Medicine is unfamiliar with scientific methods of work and thought is advised to utilize these hours in acquiring thorough familiarity with the prescribed subjects. The student who has some previous acquaintance with science and feels confident that he will not experience any exceptional difficulty in familiarizing himself with the prescribed subjects, is advised to devote a certain proportion of his optional hours to the study of such subjects of general knowledge as will assist in providing him with that breadth of outlook and catholicity of interests which will enable him to enter with intelligence into the life and interests of the communities with which he may find himself associated, and to speak and write in a clear, simple and convincing manner.

Among the various courses of this nature which are available to the first year student the following are especially recommended:—

English	2 hours
History	2 hours
Scientific French	2 hours
or	
Scientific German	2 hours
Mathematics (recommended for students of Group B4).	

It is at the beginning of his *second year* that it will be of decided advantage to the student who contemplates a career in laboratory investigation (and teaching) hygiene or psychiatry to make his choice. While the prescribed regular schedule for the second and third years adequately covers all the subjects necessary for a thorough grounding in the introductory medical sciences, there is a certain amount of extra time in which those students who may have decided that they wish to enter some special field, can take extra courses designed to fit them to that end, or in which other students may take courses in general knowledge which will be useful and valuable in whatever branch of medical science they may afterwards find their life work. It should be clearly understood that the regular and optional schedules are so arranged that it will ultimately be no hardship if a student, having mistakenly elected some special course, should decide to proceed in some other direction.

Broadly speaking the student should aim at preparing himself in one or other of the following directions:

(a) General Practice Most students will naturally prepare themselves for the general practice of Medicine.

(b) There are certain students, however, who may desire to undergo a training which will qualify them for some special type of career. Such careers are as follows:

1. Medicine or Surgery.
2. Mental Diseases.
3. Public Health.
4. Laboratory investigation (and teaching).

Before entering upon one of the courses of Class (b) the student must have the sanction of the Faculty on the recommendation of his adviser.

(a) In preparing for *General Practice* the student should remember that his profession will be at least as much a branch of social service as of technical scientific practice and that upon a number of occasions in his career he will likely be called upon for advice and guidance in matters in which not only his medical skill and knowledge will be involved, but also social, ethical and economic factors, a right understanding of which will often enable his services to be very much more effective. The student of this category is, therefore, urged to utilize a substantial proportion of his optional hours of study in acquiring some measure of knowledge of the leading principles of ethics and economics, including sociology. Optionals may be profitably chosen from among the following subjects:—

Second Year:—Any of the optionals of the first year also

- *English 2 hours.
- *History 2 hours.
- *Political Economy (Economics) 2 hours.
- *Philosophy 2 hours.
- *Psychology.
- Chemistry (Volumetric Analysis).
- Physics.
- Biology (Heredity and Eugenics).

Third Year:—Any of the optionals of the first two years also: Physiology, Biochemistry, Embryology, Cytology, Parasitology, Comparative Neurology, History of Biology III, Psychology (Lectures), Psychology (Practical), Mathematics, Chemistry, Physics, Biology II., Philosophy. Political Economy (Economics), History, Practical Dietetics.

(b) 1. In preparing himself for *Internal Medicine* or *Surgery* the student is recommended to equip himself as thoroughly as possible in the introductory Medical Sciences. He is, therefore, urged to choose the bulk of his optionals during his second and third years from subjects of this character. He must, however, also elect during both years, one of the asterisked subjects indicated above. Optionals may profitably be chosen from among the following subjects:—

*During each of these years every student must elect as one of his optionals at least one of the subjects marked with an asterisk.

Second Year:—Chemistry.

Physics.

Comparative Anatomy (Zoology).

Additional Anatomy.

Additional Histology and Embryology.

Any of the subjects detailed under the second year of Group (a).

Third Year:—Additional Biochemistry.

Additional Physiology.

Chemistry.

Any of the subjects detailed under the second and third years of Group (a).

(b) 2. The student who designs subsequently to devote himself to the study of *Mental Disease* is especially urged to equip himself with a knowledge of modern experimental psychology. He must elect one of the asterisked subjects under Group (a). Besides this the following subjects are recommended:—

Second Year:—Psychology.

Chemistry

Physics (Electricity, etc.).

Third Year:—Psychology.

Additional Physiology.

Additional Biochemistry.

(b) 3. The student desiring to work in the field of *Public Health* should aim at acquiring some knowledge of economics in order to enable him to comprehend the political and social aspects of his work, and he should acquire a knowledge of Parasitology, of the structure, habits and control of disease-bearing insects, and especially of bacteriology immunology. He must elect one of the asterisked subjects of Group (a). Besides this the following subjects are recommended:—

Second Year:—Political Economy.

Biology (Parasitology).

Chemistry.

Sanitary Engineering.

Sanitary Chemistry.

Third Year:—Bacteriology.

Protozoology.

Additional Biochemistry.

Statistics (Actuarial Science).

(b) 4. The student who aims at a career of *Laboratory Investigation* should be guided by the requirements of the field in which he desires to work, and should choose his subjects of optional study in conference with the adviser and the head of the department representing the subject in which he expects to be especially interested. The student is reminded, however, that in all fields of laboratory research, mathematics is becoming

of rapidly increasing importance and he is strongly urged to acquire a knowledge of elementary calculus and of statistical methods. He must also elect one of the asterisked subjects of Group (a).

OPTIONS OF FINAL YEARS

Students who have attained a certain standing in the courses of the first three years will be permitted to continue taking options during the 4th, 5th and 6th years. Other students will be required during the option time of the 4th year to take review courses in certain of the fundamental medical sciences, and in the 5th and 6th years, in certain subjects of the preceding years. The assignment of students to these groups will be the function of a special committee who will also determine the courses which will have to be reviewed and assign the students to each. A student making a good record during the 4th year may be promoted from the review group to the option group; similarly, during the 5th year. The time assigned for option and review courses during the 4th, 5th and 6th years will be seen to be sufficient for one option (64 hours) during the 4th year and two options during each of the 5th and 6th years. The subjects from which the options may be chosen during each of the years are given in the attached table.

An option in any one of the following Departments may be taken in the Fourth Year of the Six Year Course:

- | | |
|------------------|----------------|
| 1. Physiology. | 4. Physics. |
| 2. Biochemistry. | 5. Psychiatry. |
| 3. Anatomy. | |

Options in any two of the following Departments may be taken during the fifth Year, as follows:

- | | |
|------------------|-------------------------------|
| 1. Physiology. | 6. Pharmacology. |
| 2. Biochemistry. | 7. Pathological Chemistry. |
| 3. Anatomy. | 8. Bacteriology and Serology. |
| 4. Physics. | 9. Hygiene. |
| 5. Psychiatry. | 10. Pathology. |

Options in any two of the following Departments may be taken in the Sixth Year as follows:

- | | |
|-------------------------------|---------------------------------|
| 1. Physiology. | 9. Hygiene. |
| 2. Biochemistry. | 10. Pathology. |
| 3. Anatomy. | 11. Medicine. |
| 4. Physics. | 12. Surgery. |
| 5. Psychiatry. | 13. Obstetrics and Gynaecology. |
| 6. Pharmacology. | 14. Therapeutics. |
| 7. Pathological Chemistry. | 15. Other clinical subjects. |
| 8. Bacteriology and Serology. | |

Emphasis should be placed on the principle that no attempt is made in the optional classes of the later years, to train students as specialists.

There are, for example, no options in subjects like laryngology, ophthalmology, radiology, etc., since it is believed unsound to train men to be specialists in these fields until they have thoroughly rounded out their medical or surgical education and have served a year as an interne in the hospital. On the other hand students who have definitely decided that their future career lies in one or other of the specialties will be privileged, during their option time, to take courses in the pre-medical or fundamental sciences upon which these specialties depend. For example courses in Physics and Physiology dealing with the question of optics, acoustics, radiology, etc.

STUDENT ADVISER

34. In order to assist the student in making a correct choice of optional subjects, a student-adviser has been appointed for each year. Every student is required to submit to the adviser a list of his proposed studies and his time table, and the written approval of the adviser and the consent of the Faculty Council will be required before the student's registration will be considered to have been completed. It is understood that any coherent plan of study designed by the student for a particular and intelligible purpose will be approved, but courses of study which appear to be manifestly unsuitable, and for his choice of which the student can furnish no adequate explanation or excuse, will not be approved by the adviser.

Student Adviser for Class of 1919..... . PROF. A. L. GRAHAM.
 Student Adviser for Class of 1920..... . DR. E. S. RYERSON.
 Student Adviser for Class of 1921..... . PROF. V. E. HENDERSON.
 Student Adviser for Class of 1922.... . . PROF. H. WASTENEYS.

INSTRUCTION IN THE FIVE YEARS' COURSE

35. In the Fourth Year of the Five Years' Course the student devotes his mornings to clinical work at the various Hospitals. He spends the remainder of his afternoons at didactic lectures and at laboratory work in Pathological Histology and Gross Pathology. The clinical instruction is so directed as to prepare the student to undertake the complete physical examination of any patient, the greater part of his time being occupied with Medical and Surgical cases. In this year the student is introduced to the subjects of Obstetrics, Gynaecology, and the specialties of the Eye, Ear, Nose and Throat. Several weeks are spent in the study of Paediatrics and Orthopaedic Surgery at the Hospital for Sick Children. Lectures are also delivered during the year in Special Pathology, Therapeutics, Surgical Anatomy, Medical Jurisprudence, Toxicology and Hygiene.

36. During the Fifth Year of the Five Years' Course the student devotes one period of ten weeks to Clinical Medicine, one of ten weeks to Surgery and Surgical Pathology, and one period of five weeks to Obstetrics and Gynaecology, and one of five weeks to Clinical Therapeutics, Ophthal-

mology, Oto-Laryngology, Dermatology, Paediatrics, Neurology and Psychiatry. Those students whose work and standing justify it, will be given special advanced courses of laboratory work in Pathology and Pathological Chemistry or some special instruction in one of the clinical departments. Clinical lectures in Medicine, Surgery and special subjects, Pathological Conferences, and short courses of lectures on Anaesthesia. Dentistry, Medical Ethics, History of Medicine, and Life Insurance are also given in the Fifth Year.

37. SUBJECTS OF INSTRUCTION

FIRST YEAR.

1. Biology.
2. Chemistry.
3. Physics.
4. Science and Civilization.
5. English Expression.
6. Option.

SECOND YEAR.

1. Anatomy.
2. Histology.
3. Embryology.
4. Chemistry (Organic and Physiological).
5. Option one.
6. Option two.

THIRD YEAR.

1. Physiology including Psychology.
2. Biochemistry.
3. Bacteriology.
4. Anatomy.
5. Option one.
6. Option two.

FOURTH YEAR.

FIVE YEARS' COURSE

1. Medicine including Paediatrics.
2. Surgery.
3. Obstetrics and Gynaecology.
4. Pathology.
5. Pathological Chemistry.
6. Hygiene and Preventive Medicine.
7. Medical Jurisprudence.
8. Toxicology.
9. Psychiatry.
10. Ophthalmology.
11. Oto-Laryngology.
12. Therapeutics.

SIX YEARS' COURSE.

1. Medicine.
2. Surgery.
3. Pathology.
4. Pathological Chemistry.
5. Ophthalmology.
6. Otolaryngology.
7. Psychiatry.
8. Pharmacology.
9. Applied Anatomy.
10. Option one.

FIFTH YEAR.

1. Medicine including Paediatrics.
2. Surgery.
3. Obstetrics and Gynaecology.
4. Pathology.
5. Ophthalmology.
6. Oto-Laryngology.
7. Therapeutics.
8. Psychiatry

SUMMER COURSES IN CLINICAL SUBJECTS

38. For students who have been conditioned in Clinical subjects, courses in the following subjects will be given during the summer months.

- Clinical Medicine,
- " Surgery,
- " Obstetrics,
- " Gynaecology,
- " Ophthalmology,
- " Oto-Laryngology,

These Courses will be held at the Toronto General Hospital.

(For information regarding fees for these Courses, see page 15.)

COMBINED COURSE IN ARTS AND MEDICINE

39. It is possible for a student who takes this Biological and Medical Sciences Course, followed by the final years of the Medical Course, to obtain the degree of Bachelor of Arts at the end of four years and of Bachelor of Medicine after seven years study at the University. When entering the third year of the Arts course, these students register in the second year of Medicine and on entering their fourth year Arts, they register in the third year Medicine.

40. In the curricula of this Arts Course the Science subjects are treated more extensively than they are in the Medical curriculum.

41. The Biological and Medical Science Course completes the requirements of the first three years in Medicine with the exception of Bacteriology of the Second Year. First and Second Years in the Biological and Medical Science Course are equivalent to the First Year in Medicine. The first two years work is the same as that for the course in Physiology and Biochemistry. The students who proceed during the third and fourth years of the latter course take up the subjects of Physiology and Biochemistry *without reference to Medicine.*

42. These courses not only afford opportunities for a broader training and greater scientific attainment than is possible in the six years' course in Medicine, but they fit the student for a much wider field of usefulness after graduation. The graduate who has taken one of the Science Courses in Arts and subsequently the Course in Medicine is qualified to devote his life to one of the purely scientific lines of Medicine, if he should so elect, after leaving the University, and, moreover, he is, undoubtedly, better fitted to practise his profession should he desire to prepare himself for that alone.

43. Students who proceed to the Arts degree through other Science Courses may, on entering the Faculty of Medicine, be allowed exemption from such subjects in Medicine as they have taken in the curricula of the Faculty of Arts.

B.Sc. (MED.) COURSE

44. The degree of B.Sc. (Med.) has been added to the curriculum in Medicine so as to encourage scholarship and give official recognition to students who have done exceptionally well in the introductory medical sciences.

1. Medical students of the Six Years' Course who have reached the end of the third year or subsequent years of their course, and who have maintained a standard to be subsequently determined in all of their classes may become candidates for the degree provided: (a) They spend one year longer (a fourth year) in the introductory medical sciences in groups of courses which will be mapped out on the general basis that the greater proportion of time is spent in one department of the introductory medical sciences, and the lesser proportion in adjunct departments. These students would also, except in the case of those entering with senior or honour matriculation, be required to show facility in reading one modern language besides English, and to take sometime during the four years the two years optional course in Mathematics for medical students, or General Biology.

2. Graduates in Medicine irrespective of the standard of their entrance requirements, who have maintained a satisfactory standard throughout their entire medical course, may become candidates for the degree provided: (a) They spend one additional year in work in some laboratory department of this University (including those of the clinical years) and carry out a piece of research to the satisfaction of the head of the department. (b) They acquire facility in reading one modern language besides English. Medical graduates who return to laboratory departments as fellows or demonstrators will be eligible for the B.Sc. (Med.) degree, but the successful prosecution of a piece of research is essential.

ADMISSION TO EXAMINATIONS

45. Every student who proposes to present himself at the Annual or Supplemental Examinations must see that the Secretary has in his possession the following:—

1. *An Application for Examination.* The form supplied must be filled in, signed, and left in the Secretary's Office on or before March 15th. Students presenting applications after this date must pay an additional fee of One Dollar.

2. *A Certificate of Attendance* indicating that he has complied with the regulations respecting attendance upon didactic, laboratory and clinical work in each of the subjects of instruction for the year in which he seeks examination. This Certificate is issued by the University and must be signed by the Head of each Department after completion of the course of instruction.

46. *Candidates for the Degree of Bachelor of Medicine* are required to have on their Certificates of Attendance the following additional particulars:—

(a) A certificate of having conducted at least twenty labours under the supervision of the Head of the Department of Obstetrics and Gynaecology.

(b) A certificate of proficiency in vaccination, from the Head of the Department of Hygiene.

(c) A certificate of having attended fifteen autopsies under the supervision of the Head of the Department of Pathology.

(d) A certificate of having administered anaesthetic on six occasions, under the supervision of the Head of the Department of Therapeutics.

47. No candidate will be admitted to the Annual or Supplemental Examinations unless he has paid all the fees due from him.

48. No candidate in a course involving practical work in a laboratory or clinic will be admitted to the Annual or Supplemental Examinations if the Professor under whom his work is carried on reports in writing to the Secretary that he has not done satisfactory laboratory or clinical work, or has signally failed in the practical examinations.

49. A candidate failing in Medicine, Surgery or other clinical subjects at the annual examinations, shall be required to take a course of additional instruction provided by the Faculty of Medicine in the subject or subjects in which he has failed, before again being admitted to examinations. The length of the term of additional instruction in each case of failure will be specified by the Board of Examiners in their returns at the Annual Examinations.

50. Undergraduates who have been prevented from attending the Annual Examinations by sickness, domestic affliction, or other causes beyond their control, may make application for permission to present themselves for examination at the Supplemental Examinations in September, and must give satisfactory evidence of the cause of absence.

EXAMINATIONS

51. The Annual Examinations are held in May at the end of the First, Second, Third, Fourth, Fifth and Sixth academic years, and the Supplemental Examinations in September.

52. The minimum pass standard in each subject of examination is 50%.

SUBJECTS OF THE ANNUAL EXAMINATIONS

SIX YEARS' COURSE.

53. FIRST EXAMINATION.

- Group A. $\left\{ \begin{array}{l} 1. \text{Biology.} \\ 2. \text{Chemistry.} \\ 3. \text{Physics.} \end{array} \right.$
- Group B. $\left\{ \begin{array}{l} 4. \text{Science and Civilization and English Expression.} \\ 5. \text{Option.} \end{array} \right.$

Candidates who fail in any subject or subjects at the Annual Examinations may present themselves at the Supplemental Examinations next ensuing.

Candidates who fail in any subject or subjects at the Supplemental Examinations will only be permitted to register again to repeat the First Year of the course under very exceptional circumstances and must obtain the permission of the Faculty before being allowed to register.

(The students' attention is particularly drawn to paragraph 15 page 13).

54. SECOND EXAMINATION.

1. Anatomy.
2. Histology, Embryology.
3. Organic and Physical Chemistry.
4. Option one.
5. Option two.

55. THIRD EXAMINATION.

1. Physiology.
2. Biochemistry.
3. Anatomy.
4. Bacteriology.
5. Option one.
6. Option two.

56. FOURTH EXAMINATION

1. Medicine.
2. Surgery.
3. Pathology.
4. Pathological Chemistry (Practical Examination).
5. Pharmacology.
6. Option.

NOTE.—Questions on Applied Anatomy may be asked on the papers in Medicine and Surgery.

57. Candidates at the Second, Third and Fourth Examinations who have passed in all but two subjects may present themselves at the Supplemental Examinations next ensuing.

Candidates at the Second, Third and Fourth Examinations failing in three or more subjects must repeat the entire work of the year, including the examinations in every subject of the year.

58. Candidates at the Supplemental Examinations who succeed in passing in the one or the two subjects in which they were conditioned at the Annual Examinations shall be allowed their year.

59. Candidates at the Supplemental Examinations who fail in any subject in which they were conditioned, will be required to repeat the entire work of the year, including the examinations in every subject of the year.

60. It has been the regulation for some years that students be not informed of the marks they have obtained at the Annual or Supplemental Examinations. In future a statement will be sent to all students who have not completely passed in all examinations and to any other students who request the same *in writing*, from the Secretary indicating their approximate standing as follows:—

- A—75% to 100%.
- B—60% to 74%.
- C—40% to 49%.
- D—below 40%.

61. SUBJECTS OF THE ANNUAL EXAMINATIONS

FIVE YEARS' COURSE.

FOURTH EXAMINATION.

1. Medicine including Paediatrics.
2. Surgery.
3. Obstetrics and Gynaecology.
4. Pathology.
5. Pathological Chemistry.
6. Hygiene and Preventive Medicine.
7. Medical Jurisprudence and Toxicology.
8. Therapeutics.

FIFTH EXAMINATION.

1. Medicine.
2. Surgery.
3. Obstetrics and Gynaecology
4. Pathology.
5. Paediatrics.
6. Clinical Ophthalmology.
7. Clinical Oto-Laryngology.
8. Clinical Therapeutics.

62. REGULATIONS FOR LICENCE TO PRACTISE

The right to practise Medicine in Canada or its provinces is not conferred when a student receives his degree from the University. There is a licensing body for the Dominion and one for each of the provinces, each of which has formulated certain medical laws and a standard of general education with which the student must comply before he is entitled to practise. One of these requirements is that it is necessary to be registered in the province in which the student intends to practise, five years before he can obtain a license. Students are therefore advised to complete their registration for license to practise in the First or Second Year.

For official information of all matters relative to the regulations for licence to practise in the various Provinces in the Dominion, students should communicate with the Registrar. The following is a list of the names and addresses of the Registrars of the Medical Councils:

For official information regarding the Medical Council of Canada address: Dr. R. W. Powell, 180 Cooper Street, Ottawa, Canada.

Ontario—Dr. H. W. Aikins, 170 University Ave., Toronto.

Quebec—Dr. J. Gauvreau, 30 St. James Street, Montreal, and Dr. C. R.

Paquin, Quebec, P.Q.

New Brunswick—Dr. John S. Bentley, St. John.

Nova Scotia—Dr. W. H. Hattie, Halifax, N.S.

Prince Edward Island—Dr. S. R. Jenkins, Charlottetown.

Newfoundland—Dr. H. Rendell, St. John's, Newfoundland.

Manitoba—Dr. J. S. Gray, 358 Hargrave Street, Winnipeg, or W. J.

Spence, Registrar, University of Manitoba, Winnipeg.

Alberta—Dr. G. R. Johnson, Calgary, Alta.

Saskatchewan—Dr. G. A. Charlton, Regina.

British Columbia—Dr. A. P. Proctor, Vancouver, B.C.

HONOUR STANDING

63. In the results of the examinations of each year those students who obtain an average of 75% in all subjects of the year and not less than 60% in any subject, shall be considered as having obtained Honour Standing.

64. REGULATIONS FOR THE DEGREE OF DOCTOR OF MEDICINE AND MASTER OF SURGERY

The Degrees which the Faculty of Medicine, University of Toronto, offer to Graduate students are those of Doctor of Medicine (M.D.) and Master of Surgery (Ch M.).

Before a candidate will be eligible to register for these degrees he must have fulfilled the following entrance requirements:

- (1) Graduated in Medicine from a recognized University.
- (2) Spent one year in a Hospital as an Interne on a rotating service or its equivalent. (Two years general practice may be accepted as the equivalent of this).

Length of Course:

The course will be normally of three years duration of twelve months each.

Three years or more in general practice may be accepted as equivalent to one of the clinical years of the course. One full year's special work in one of the required laboratory subjects of the course may be accepted as equivalent to the laboratory year of the course. A graduate having the B.S.c (Med.) will be considered as having fulfilled this requirement. In very exceptional cases, both of the above alternatives may be allowed.

The Course will consist of:

First Year (Clinical).

One year's instruction in Medicine or Surgery.

This may be taken while the student is acting as a Hospital Interne in the selected clinical subject. (This is in addition to the internship on a rotating service).

Second Year (Laboratory).

One year's instruction in a laboratory subject.

The student will devote the major part of his time for this year to work in one of the following laboratory departments and the minor part to work in any other two of these departments:

- (a) Anatomy.
- (b) Physiology.
- (c) Biochemistry.
- (d) Pathological Chemistry.
- (e) Pathology.
- (f) Bacteriology and Immunology.
- (g) Pharmacology.
- (h) Physics.

Until such time as these new regulations come into force all applicants wishing to proceed to the degree of M.D. will be required to submit applications which will be considered by the Committee who will determine whether or not a candidate is eligible to proceed and the method of his procedure.

Third Year (Clinical).

One year's instruction in Medicine or Surgery.

One of the clinical years in the course for the Surgical Degree may be spent in the Department of Obstetrics and Gynaecology.

This clinical year may be taken while holding a hospital appointment in the selected clinical department.

Candidates in Medicine or Surgery, besides being familiar with the general field of the subject, must be able to make:

- (a) A satisfactory examination of the Eye, Ear, Nose and Throat.
- (b) A satisfactory pelvic examination.
- (c) A satisfactory routine laboratory examination.

Candidates must present a satisfactory thesis and pass an examination in the subjects of instruction at the end of the course. Candidates proceeding to the Ch.M. must pass an examination in General Surgery.

ADMISSION AD EUNDEM GRADUM

65. A graduate of any of the universities in Great Britain or Ireland, if his degree be not an honorary one, may be admitted to the like degree in the University of Toronto. He must send in his certificate to the Registrar at least two weeks before the first meeting of the session of the Senate at which his application is to be brought forward.

THE GEORGE BROWN MEMORIAL SCHOLARSHIP IN MEDICAL SCIENCE

66. Dr. A. H. F. Barbour, of Edinburgh, having placed one thousand pounds sterling at the disposal of the University of Toronto, for the purpose of founding a Scholarship in Medical Science in memory of the late Hon. George Brown, the following regulations have been adopted with regard thereto—

This scholarship shall be called the George Brown Memorial Scholarship in Medical Science and shall be awarded annually at the Convocation for conferring degrees in Medicine to the Bachelor of Medicine who shall have distinguished himself most in the subjects of Anatomy, Biology, Physiology, Biochemistry, Pharmacology, Pathology and Pathological Chemistry.

The award shall be made by a committee composed of the Professors in these subjects who shall report as to the successful candidates, after having given due attention to the results of the annual examinations, and to the character of the work done by the candidates in the University laboratories.

The holder of the scholarship during the year of tenure is required to engage in original research in any one of the laboratories of the University on some subject bearing on the advancement of medical science—the laboratory providing the material for the investigation.

The scholarship is to be paid in two portions, two-thirds at the time of award and one-third six months later, on the holder giving satisfactory report (to whomsoever the University may appoint) of the work he has already done.

A report of the research, when completed, is to be given to the University. The value of the scholarship is five hundred dollars (\$500 00).

THE STARR MEDALS

67. The late Richard Noble Starr, M.D., devised certain property for the encouragement of post-graduate study in Anatomy, Physiology and Pathology, and in fulfilment of this object one gold and two silver medals called the "Starr Medals", are awarded annually to three candidates for the degree of M.D., who have shown by the theses which they have presented for that degree, that they have successfully pursued such study in any one of these subjects. The theses for which these medals are given must attain a standard approved of by the Board of Examiners, and the relative value of the theses will determine the rank of the candidates for the medals

GEORGE ARMSTRONG PETERS SCHOLARSHIP

68. The Scholarship will be awarded biennially to a graduate student of the University of Toronto on the recommendation of the Department of Surgery.

The first award was made in 1912. The holder of the Scholarship will be required to undertake work in one of the Departments of the University which will have some special bearing on Surgery.

This Scholarship will be available for any graduate who wishes to do special research work in connection with the Department of Surgery or in correlated subjects.

A graduate wishing to obtain the Scholarship must apply to the Department of Surgery and present his credentials, and the award will be made on the recommendation of the Department.

The value of the Scholarship is two hundred dollars (\$200.00).

A PRIZE

69. A portion of the Reeve Post-Graduate Fund will be devoted to establishing a prize of \$50.00, to be awarded annually for the best published report of work done in the laboratories by a research Fellow or junior member of the staff in any department in Medicine.

The award shall be made in September by a Committee composed of the Professors of Anatomy, Physiology, Biochemistry, Pharmacology, Pathology and Pathological Chemistry.

THE JAMES H. RICHARDSON RESEARCH FELLOWSHIP IN ANATOMY

70. This Fellowship of the annual value of Five hundred dollars (\$500.00) has been established in memory of the late Dr. James H. Richardson, for

many years Professor of Anatomy in the University of Toronto. It is open to graduates in Medicine of the University of Toronto and of such other Universities and Medical Schools as may be approved by the Nominating Committee and to students in the University of Toronto who shall have completed the third year of the course in Medicine.

The fellowship is awarded on the nomination of a Committee consisting of the Professor of Anatomy, the Professor of Biology and the Professor of Surgery in the University of Toronto, and the holder of it is obliged, during its tenure, to devote his entire time to investigation in Anatomy under the direction of the Professor of Anatomy in the University of Toronto. The fellowship is tenable for one year, but the holder of it is eligible for re-appointment for not more than two additional years, at the discretion of the University Senate upon the recommendation of the Nominating Committee.

Applications for nomination to the Fellowship should be handed to the Professor of Anatomy not later than the first day of May of each year.

RESEARCH MEDICINE

71. During the early months of 1913, on request, a number of business men subscribed to a fund for the promotion of Clinical and Laboratory Research work in the Department of Medicine. The fund has already reached upwards of \$75,000.00, it is payable in five annual instalments.

The first aim is to establish one or more Fellowships annually, for the recent graduates. Each Fellowship is tenable for three years, and will be of the value of \$750 the first year.

ELLEN MICKLE FELLOWSHIP

72 A Fellowship, being the annual income from an endowment of Twenty Five Thousand Dollars (\$25,000) has been established by the late Dr. W. J. Mickle, known as "The Ellen Mickle Fellowship", to be given to the student (or students) who in the examinations at the end of the fourth year of the Old Course or the fifth year of the New Course in Medicine, shall have taken honours of the first class in at least three fourths of the subjects of that year, and shall have obtained the highest marks in the examinations. The award will be made to the above referred to student (or students) provided he proceed to the degree of Bachelor of Medicine in this University and spend one year in post graduate study approved by the Council of the Faculty of Medicine.

CHARLES MICKLE FELLOWSHIP

73. This Fellowship, bequeathed by the late Dr. W. J. Mickle, being the annual income from an endowment of Twenty Five Thousand Dollars (\$25,000) will be awarded annually to that member of the medical profession who is considered by the Council of the Faculty of Medicine of the University of Toronto to have done most during the preceding ten years to advance sound knowledge of a practical kind in medical art or science.

COURSES FOR GRADUATES IN MEDICINE

74. The Faculty of Medicine of the University of Toronto recognizes that the practitioners of the Province are anxious to keep closely in touch with the advances in Medicine, and that they have a claim on the Provincial University to aid them in doing so. The Faculty considers this entails on it a duty second only to the instruction of the undergraduate.

At the present time the large amount of undergraduate teaching makes it impossible to offer during the academic session set courses of sufficient variety to meet all the needs of those who seek further study.

Those who have studied abroad know that the routine method is for the graduate to attend the instruction given to the students of the senior years in Medicine, to follow the ward rounds and to go to the out-patient department picking up what he can. The Faculty has opened the courses of instruction given to the higher years in Medicine to any one who cares to attend and refresh his knowledge in this way. A Standing Committee has been appointed whose duty it is to give any graduate interested, advice as to the clinics and lectures which should be taken and to confer with the heads of departments and individual teachers so as to arrange a course in advance for each applicant. Such a course may be modified by the committee if it does not prove suitable.

The Fifth Year student in Medicine is now receiving the most advanced type of clinical instruction, and his teachers often take advantage of the modern laboratory training given in the junior years and may thus make their instruction somewhat difficult to follow by those who have not had this preliminary training. The teacher will, however, be prepared to explain privately any difficulties or through the Committee to arrange for some special laboratory instruction. If special instruction is required in order to enable him to follow the clinical work, the Committee will attempt to arrange it.

During each year graduates attend undergraduate courses of this kind.

All the library facilities of the University will be open to any post graduate student under the usual conditions.

The staff fully realizes that every effort must be made to render the visit of each post-graduate student both pleasant and of real value. Instruction may be obtained as outlined above in the following:

Medicine.

Surgery.

Obstetrics and Gynaecology.

Paediatrics.

Otology, Rhinology, Laryngology.

Ophthalmology.

Preventive Medicine.

Pathology and Bacteriology.

The University will impose a minimum fee of \$10.00 per month. This will be imposed for any course of less than a month as a registration fee. In such cases where extended work and attention is required, a special fee to cover the same will be arranged by the committee.

SPECIAL GRADUATE COURSES

75. The Faculty has, during the past year, arranged several special graduate courses. A month's course in Paediatrics was given last July and a combined course in Medicine, Surgery and Obstetrics lasting one week in the Christmas holidays. These courses were attended by a large number of graduates. It is the intention of the Faculty to arrange courses of a similar character each year. Such courses deal exhaustively with a limited part of a subject, with the object of making it as useful as possible to the general practitioner.

SHORT COURSES IN RADIOLOGY

76. In order to meet the needs of those graduates in medicine who desire short courses of instruction in Radiology, it has been arranged to provide three courses a year of one month each at the Toronto General Hospital. Classes will be limited and an intensive schedule has been outlined to include:

- (a) Radiographic Technique.
- (b) Interpretation.
- (c) Gastro-Intestinal Examination.

In these courses the entire resources of this large clinic will be placed at the disposal of the student in the most practical manner possible.

The dates are as follows:

1st Course, month of October, 1922.

2nd Course, month of January, 1923.

3rd Course, month of May, 1923.

For full information and terms apply to the Secretary of the Faculty of Medicine, University of Toronto.

EXTENSION LECTURES

77. By an arrangement with the Ontario Medical Association the Medical Faculty of the University has offered to the profession some ninety lectures on the most important subjects in various fields of medical science. Application for these lectures may be made through the Secretary of the Ontario Medical Association, (from whom a copy of the titles of the lectures may be obtained). Any society or group of physicians may apply for a course of lectures on any subject.

CURRICULUM FOR THE DIPLOMA OF PUBLIC HEALTH

1 The University provides a Diploma of Public Health (D. P. H.) on the following conditions:—

2. Candidates for the Diploma must be graduates in Medicine of this University or some other University recognized for this purpose by the Senate.

3. The curriculum leading to the Diploma extends over one Winter Session of eight months and one Summer Session of three months.

4. The Winter Session is devoted to:—

Laboratory Courses and Lectures in :—

- (a) Bacteriology.
- (b) Sanitary Chemistry.
- (c) Parasitology.

and, to attendance at:—

- (d) Clinics for Communicable Diseases.
- (e) Psychopathic Clinics.
- (f) Venereal Diseases Clinics.
- (g) Tuberculosis Clinics.
- (h) Well-Baby Clinics.
- (i) Ante-Natal Clinics.

and, to Lectures or Practical Work in

- (j) General Hygiene.
- (k) Immunology.
- (l) Applied Physiology.
- (m) Sanitary Engineering.
- (n) Public Health Organization and Legislation, and Vital Statistics.
- (o) History of Preventive Medicine and Epidemiology.
- (p) Nutrition and Dietetics.
- (q) Industrial Hygiene.

The Provincial Board of Health of Ontario, the City Health Department of Toronto and the special Clinics at the Toronto General Hospital and the Hospital for Sick Children provide unusual facilities for instruction in the practice of Preventive Medicine.

5. The Summer Session is spent in Field Work in Public Health under the supervision of a recognized Department of Health and includes a study of the methods of dealing with communicable diseases, inspections of schools and other public buildings, factories and dairies, inspections of water supplies and sewage disposal plants; food and meat inspection and other forms of municipal sanitation, and medical inspection of school children.

6. When the required courses of study have been completed, written and practical examinations will be held on the subjects of the curriculum specified in paragraph 4.

7. Candidates who have passed the examinations and who have satisfactorily completed the work specified in paragraph 5 will be granted the Diploma in Public Health.

8. The fee for the course, as outlined in paragraphs 3, 4 and 5, is \$150, payable in two instalments of \$75.00 each, at the beginning of the Fall Session, and the Winter Session respectively. The fee for the Diploma is \$20.00.

9. Candidates for the Diploma in Public Health are required to undertake the investigation of an assigned Public Health problem, complete the same and submit the results in the form of a report before being permitted to proceed to the examinations leading to the Diploma.

10. Graduates in Medicine, who for a period of two years have been engaged in full-time Public Health work, may, under the following conditions, take the examination specified in paragraph 6, when they have completed the courses required in paragraph 4.

The work required in the curriculum may be extended over a period of more than one academic year, and the examinations taken when all courses of study have been completed. A yearly fee of \$75 00 payable at the beginning of the Fall Term, must be paid by candidates taking more than one year to complete the required courses. (If only one year is taken to complete the work the fee is \$150 00).

11. Candidates who present satisfactory evidence of having completed work, the equivalent of that required in certain of the courses specified in paragraphs 4 and 5, may petition to be granted exemption from attendance on such courses. This will apply only in the cases of candidates who have been for at least two years engaged in full-time Public Health work, and who at the time of registration are so engaged.

12. The examination of those qualifying under clause 10 will be held in May and September, for others, in September only.

CURRICULUM FOR THE DIPLOMA OF RADIOLOGY

The Faculty of Medicine, University of Toronto, has instituted a graduate course leading to a Diploma in Radiology.

Candidates for the Diploma are required to

- (a) Be graduates in Medicine of this University or some other University recognized for this purpose by the Senate.
- (b) Have spent at least one year after graduation as an interne in a recognized hospital.

The Curriculum leading to the Diploma extends over one Winter session of eight months.

The session will be devoted to courses in

PHYSICS

The instruction in Physics will consist of three courses of lectures accompanied by practical work in illustrative experiments.

The lecture courses are as follows.

1. *Radiation.*

In this course of lectures there will be discussed—

- (a) The origin of radiations, (b) the properties of various types of radiation, including infra red, ultra violet and visible rays; (c) absorption of radiations; (d) fluorescence and phosphorescence.

2. *Electricity, Magnetism and Roentgen Radiology.*

This course of lectures will consist in the treatment of (a) the fundamental idea of charge electricity, difference of potential, electromotive force, capacity, current and inductance; (b) the effects of electrical currents with particular attention paid to electromagnetism and the application of the latter in various measuring instruments; (c) detailed study of the principles underlying motors, dynamos, and other instruments used in X-ray technique; (d) the properties of electrons—the production of X-rays, and the properties and quantitative measurements of these rays.

3. *Radioactivity.*

This course of lectures will consist of the (a) isolation of radioactive substances; (b) radiations (L.B. and X-rays) emitted by radioactive substances and quantitative measurements of these three types of rays; (c) properties of radioactive emanations from radium, thorium and actinium; (d) radioactive transmutations generally with applications to selected problems.

RADIOLOGY

(1) *Anatomy.*

A detailed study in normal Anatomy from a Radiological aspect in infancy, adult life and old age. The epiphyses: appearance of the skeleton from various angles together with many abnormalities which do not constitute pathological processes; the changes which normally occur in bones and joints with advancing age and in old age. The normal anatomy of the thoracic and abdominal viscera, etc.

(2) *Pathology.*

A course in co-operation with the Department of Pathology in which a special study will be made of the pathology of all diseases which come within the range of X-ray and Radium methods either in diagnosis or treatment. In the latter a study will also be made of the histological changes brought about by X-ray or radium applications to various tissues.

(3) *Technique.*

A complete course in the technique of Radiography. Ample facilities are provided for the student to personally carry out all procedures and to perfect himself in this side of the work. In the later part of his course he will be expected to take entire charge of one of the operating rooms.

(4) *X-ray Interpretation.*

In addition to the daily routine of plate interpretation there is now a classified library of several thousand plates including nearly all the unusual and interesting cases to be met with and these will be studied systematically. There is also an almost unlimited collection of other plates which are available for study.

(5) *X-ray Therapy.*

A complete course in Therapy is provided. This will include all aspects of this work from the superficial to the intensive use of voltages up to 250,000 together with the methods of measurement and calculation of all dosages. The material available for this study is very large and diversified.

(6) *Radium.*

A course in Radium Therapy which for the present is limited to the use of Radium element.

(7) *Short Courses in Medicine and Surgery.*

As in Pathology, so in Medicine, Surgery and Gynaecology, courses will be arranged in collaboration with those Departments for Systematic

lectures and study of the various diseases or conditions under consideration in order that the student may be presented with the entire problem in its broader aspect.

Examinations on the subjects of the curriculum will be held at the end of the session.

Candidates who have passed the examinations and who present certificates of having satisfactorily completed the work specified will be granted the Diploma in Radiology.

COURSES OF INSTRUCTION

CHEMISTRY

Professor of Organic Chemistry and Secretary of the Department of Chemistry:

F. B. ALLAN.

Professor: F. B. KENRICK.

Professor of Physical Chemistry: W. LASH MILLER.

Associate Professor: J. B. FERGUSON.

Assistant Professor of Electrochemistry: J. T. BURT-GERRANS

Assistant Professor: W. S. FUNNELL.

Assistant Professor of Analytical Chemistry: L. J. ROGERS.

Lecturer: W. H. MARTIN.

Assistants: J. E. CLARK, W. R. FETZER, D. M. FINDLAY, C. S. GILBERT,

E. HAAS, W. B. LEAF, F. LORRIMAN, W. G. NOBLE, J. H. RATCLIFFE,

J. W. REBBECK, A. N. THOMAS, W. K. THOMPSON, A. E. R. WEST-

MAN, G. WILLIAMS, K. L. WISMER.

All lectures and practical work will be given in the Chemistry Building.

FIRST YEAR

Lectures.—Students attend a course of experimental lectures delivered twice a week in the lecture theatre. This course embraces the study of the non-metallic and metallic elements and their principal compounds based on Mendelejeff's classification of the elements. By special arrangement these lectures are given by Professor W. R. Lang, Head of the Department of Military Studies.

Practical Chemistry.—The laboratory work commences with quantitative and qualitative experiments illustrating the fundamental principles of chemistry; this is followed by work more intimately related to analytical chemistry. Instruction in quantitative methods of analysis is given.

SECOND YEAR

Lectures.—A course of lectures on the systematic classification of organic compounds and on elementary physical chemistry, twice a week.

Practical Chemistry.—A special laboratory course to accompany the above lecture course will be given during the Easter Term.

Students working in the laboratory are provided with the necessary apparatus on making a deposit of four dollars at the commencement of the session, which will be returned at its close after the following charges have been deducted from it—

(1) The cost of all apparatus broken or destroyed.

(2) Any fines for breach of laboratory rules.

No certificate will be given for the practical work unless the student has passed the practical examinations conducted during the session.

There is an optional course in volumetric chemistry.

Text-books:—Modern Inorganic Chemistry, Mellor; Inorganic Chemistry, Newth; General Chemistry for Colleges, Alex. Smith; Organic

Chemistry, Norris; Physical Chemistry for Physicians and Biologists, Cohen and Fischer; An Elementary Laboratory Course in Chemistry, Kenrick and DeLury.

Books of reference recommended:—Inorganic Chemistry, Richter; Organic Chemistry, Richter.

PHYSICS

Professor and Director of the Physical Laboratory: J. C. McLENNAN.

Associate Professors E. F. BURTON, JOHN SATTERLY.

Assistant Professors: LACHLAN GILCHRIST, H. A. McTAGGART.

Demonstrators: D. S. AINSLIE, H. C. BATES, MISS K. M. CROSSLEY,
MISS H. C. MILLAR, MISS F. M. QUINLAN.

Assistant Demonstrators: J. E. CURRIE, MISS H. I. EADIE.

Secretarial Assistant: MISS A. T. REED.

The work of instruction on Physics consists of a series of lectures and a course in practical work in the laboratories.

FIRST YEAR

Lectures.—The lectures on Physics will not only give a concise outline of the subject, but are intended to form a satisfactory foundation for future study in other branches of science.

A course of lectures on Practical Mathematics for students of Physics will be given one day a week during the whole year. Each lecture will be followed by one hour on the practical application of the principles dealt with in the lecture.

There will be three lectures in Physics per week during the year; one lecture each week bears directly on the practical work assigned to the student, while the other two lectures each week are part of a course dealing more particularly with the principles of Physics of special use to students of Medicine. The following is an outline of the work covered:

1. APPLIED MATHEMATICS AND CALCULATIONS.

Calculations of experimental results to show limits of accuracy: contracted methods: logarithms.

Trigonometrical ratios defined, and simple relations deduced; reading of tables of sines, cosines and tangents.

Graphical methods; equations to straight line and parabola; logarithmic curves; deduction of simple formulae from graphs; slope of curves from graphs.

Simple ideas involved in the calculus; illustration of velocity of a falling body from $s = \frac{1}{2} gt^2$.

2. MECHANICS.

Measuring instruments, length, volume; verniers, micrometers.

Forces: conditions of equilibrium; resolution of forces, moments; centre of gravity; levers and simple machines.

Velocity; acceleration, momentum, force, work and power; absolute and practical units in English and metric systems; mass and weight, value of 'g'.

Energy, kinetic and potential, transmutation of energy, law of conservation of energy.

Simple harmonic motion; the pendulum; combination of two motions perpendicular to each other; Lissajous figures, Blackburn's pendulum.

3. HYDROSTATICS AND HYDROMECHANICS.

Laws of pressure in fluids at rest; Pascal's Law and Archimedes' principle; specific gravity; the hydrostatic paradox; resultant vertical forces on walls manometers, barometers, mercury and aneroid; Bramah's press, pumps.

Archimedes' principle in air; weight of atmosphere.

Laws of pressure in fluids in motion; Bernoulli's principle; applications such as atomizer, Bunsen burner, filter pump; action of air in winds and curving of balls in flight.

4. PROPERTIES OF MATTER.

Principles of the kinetic theory of matter; structure of solids, liquids and gases; diffusion; molecules and molecular forces.

Elastic properties of solids; bulk modulus, torsion modulus or rigidity, Young's modulus; micro-photographic study of metals; crystallization.

Viscosity of fluids; velocity gradient; coefficient of viscosity; Poiseuille's law for tubes; experimental determination of coefficient; Ostwald viscosimeter; viscosity and temperature; relation to blood flow; capillaries.

Surface tension; experimental illustrations, definition of coefficient and determination of same; energy of surface; shapes of free surfaces.

Laws of gases; theoretical determination of pressure, $p = 1/3 mnV^2$; Boyle's Law; Charles' Law; laws of diffusion.

Change of state; solid to liquid, liquid to gas; vapour pressure, with measurement; relation to temperature; vapour density; liquefaction of gases; critical temperature and pressure; low temperatures.

Colloidal solutions; size of particles; physical properties; mobility; coagulation by electrolytes; Brownian movement and its molecular explanation; confirmation of the kinetic theory; dialysis; relation to body fluids and membranes.

5. HEAT.

Expansion of solids, liquids and gases; thermometers; Centigrade and Fahrenheit scales; absolute scale; maximum and minimum thermometers; clinical thermometer.

Capacity for heat, calorie; specific heats; latent heat of vaporization and fusion; calorimetry.

Heat as energy, mechanical equivalent of heat; Joule's law.

Vapour pressure; vapour density; dew point; various forms of hygrometers; relative humidity.

Radiation; laws of cooling; wave length of heat radiations; transmission of energy through space. Conduction.

6. ACOUSTICS.

Production, propagation and recording of sounds; characteristics of a note, pitch, intensity and quality, definition of wave length; determination of velocity; $V=n\lambda$, resonance; stationary waves, organ pipes; laws of strings; membranes, voice production and structure of ear; interference of sound waves, beats and beat tones; absorption and reflection of sound; musical scales.

7. ELECTRICITY AND MAGNETISM.

The fundamental phenomena associated with electrified bodies and the laws of the action of electrical charges. The methods of measurement of electrical charge, current, potential, capacity, resistance, conductance and the definition of the units of these quantities in the electrostatic, practical and electromagnetic systems.

The construction and action of the instruments used in measuring electrical quantities and the methods of calibrating them. These instruments include galvanometers, ammeters, voltmeters, electrometers, potentiometers and wattmeters.

The properties of liquid conductors, and the measurement of their conductivity. Faraday's laws of electrolysis and the method of determination of the electro-chemical equivalent.

The properties and laws of action of magnets and of the magnetic fields associated with a circuit having a current, the method of measuring magnetic mass and magnetic field intensity and the definition of the units of these quantities.

The method of production, the properties and the measurement of induced currents of varying frequencies and their application.

The discharge of electricity through gases, and the factors upon which their conductivity depends and the properties and uses of anode, cathode and X rays.

The methods of investigating and identifying radioactive substances. The properties of radioactive radiations and their uses.

8. LIGHT.

The electron as a source of light waves—nature of the waves—their velocity in free space, water and glass—their reception by the eye. Analogies in sound and wireless signalling.

Reflection of waves from plane and spherical mirrors—focal lengths of spherical mirrors—images—optical diagrams.

Refraction of waves at a plane surface—index of refraction—the critical angle—methods of finding the index. Refraction of waves at a spherical surface—foci and focal lengths—the dioptré—power of a lens—images—optical diagrams.

The eye.—Diagram of the eye—accommodation—the normal, myopic and hypermetropic eye—the far point—lens necessary to correct myopia and hypermetropia—astigmatism.

Optical instruments.—The reading lens, compound microscope, telescope, prism binoculars.

Colour.—Variation of refractive index with colour—deviation of light by a prism—dispersion—kinds of optical glass manufactured—achromatic pair of prisms—direct vision spectroscopy—colour blindness.

Spectroscopy.—Emission spectra of solids, liquids and vapours or gases—spectrum analysis—absorption spectra—range of ether waves from infra red to ultra violet waves and X-ray waves.

Polarised light.—Polarisation by reflection, by refraction, by natural crystals—the Nicol prism—rotation of the plane of polarisation, the polarimeter.

Interference.—Interference of waves—colours in thin films.

Practical Work.—The Practical Work, consisting of a laboratory course of three hours each week designed to illustrate the principles dealt with in the lectures, will be conducted under the supervision of the Director of the Laboratory.

Tutorial Classes.—In addition to the above, each student is required to attend a tutorial class, one hour each week, in the general work covered by all the above courses.

Text-books: Mechanics and Hydrostatics: "Mechanics for the Upper School", Merchant and Chant (Copp Clark); Heat: "Senior Heat", Stewart and Satterly (Univ. Tutorial Press); "Light and Sound": Duncan and Starling (MacMillan Co.); "Electricity and Magnetism": Hutchinson (Univ. Tutorial Press).

OPTIONAL COURSES IN PHYSICS

In accordance with the plan outlined by the faculty optional courses in Physics are offered in years succeeding the first, as follows:

SECOND YEAR

Advanced Electricity and Magnetism.....PROFESSOR BURTON.

This course of 60 hours is designed to follow on the work in electricity of the first year course. Special emphasis on conduction through liquids and allied phenomena.

THIRD YEAR

Colloidal Solutions and Properties of Matter.

I. *Colloidal Solutions* PROFESSOR BURTON.

A course of thirty hours lectures and demonstrating on the preparation of colloidal solutions and the study of their properties.

II. *Properties of Matter* PROFESSOR SATTERLY.

A course of thirty hours lectures and practical demonstration on Radio-active Substances and their Radiations.

FOURTH YEAR

Acoustics and Optics.

I. *Acoustics* PROFESSOR BURTON.

A course of thirty hours lecture and demonstrations in advanced acoustics.

II. *Optics* PROFESSOR McTAGGART.

A course of thirty hours lectures and demonstrations in advanced optics.

FIFTH YEAR

Radiation and Radioactivity PROFESSOR McLENNAN.

A course of sixty hours on radiations and their properties followed by practical work.

SIXTH YEAR

Radiology PROFESSOR GILCHRIST.

A course of sixty hours lecture and laboratory work on Radiology.

REGULATIONS.—Deposit Fee: Each student taking the laboratory course is required to make a deposit of three dollars (\$3.00) before beginning work. All supplies, apparatus broken or destroyed and all fines will be charged against this deposit, which must be renewed when exhausted. At the close of the session cash balances will be returned on a day appointed for the purpose.

RELATION OF SCIENCE TO CIVILIZATION

FIRST YEAR

Lectures.—The greater part of the assigned time of 60 hours will be devoted to a course of lectures designed to illustrate the influence which scientific thought and achievement have had on the development of modern civilization. The remaining time will be devoted to conferences and reviews. The lectures will be given jointly by several lecturers, but the course as a whole will be under the general direction of Professor Huntsman.

Attendance and examination requirements are the same for this as for other courses of the first year.

EXPRESSION

FIRST YEAR

Tutorial Classes—In this course instruction will be given in the correct use of written and spoken English, and opportunity will be afforded each student to acquire experience in public speaking.

In order that the instruction may be as thorough as possible, the class will be divided into several groups, each of which will meet twice a week.

BIOLOGY

Professor of Zoology: B. A. BENSLEY.

Associate Professor of Histology and Embryology: W. H. PIERSOL.

Associate Professor of Zoology: E. M. WALKER.

Assistant Professor in Vertebrate Embryology: A. F. COVENTRY.

Assistant Professor in Biology: W. A. CLEMENS.

Lecturer in Comparative Anatomy: E. H. CRAIGIE.

Lecturer in Mammalian Anatomy: W. H. T. BAILLIE.

Lecturer in Experimental Biology: J. W. MACARTHUR.

Class Assistants: H. D. BALL, F. C. HAMILTON, W. J. K. HARKNESS,

J. H. A. MACDONALD, J. M. MACDONALD, N. A. McCORMICK, E.

McCULLOCH, A. G. MCPHEDRAN, N. F. MORRISON, L. A. PEQUEGNAT,

W. E. SPARKS, P. D. SPOHN, R. S. STONE, O. C. J. WITHROW.

Secretarial Assistant: MISS N. C. LAWLER.

FIRST YEAR

Lectures.—1. Students of the First Year will attend a course of ninety lectures to be given three times a week during the session. The lectures will serve as an introduction to the biological fields in relation to medicine. The topics include (1) the general nature of living organisms and of cell processes, (2) the types of lower organisms of interest to students of Medicine, (3) the elements of comparative anatomy, and (4) biological principles as applied to man.

Practical Work.—2. A course of one hundred and eighty hours, comprising two three-hour periods per week, the materials of which are based as far as possible on Lecture course I. The work comprises microscope practice, elementary experimental studies on the nature of cell processes, types of lower organisms, and a selected list of vertebrates, including the elements of mammalian anatomy.

SECOND YEAR

Lectures and Practical Work—

1. A course of ten lectures and twenty hours laboratory work introductory to Embryology and Histology.

2. A course of fifteen lectures and sixty hours laboratory work on Histogenesis and General Histology.

3. A course of twenty lectures and forty hours laboratory work on the development of the human body.

4. A course of fifteen lectures and sixty hours laboratory work on Human Microscopic Anatomy.

The student will have the opportunity of providing himself with a set of typical histological specimens.

5. *Option*.—A course on the principles of evolution, heredity and eugenics in relation to medical and sociological problems (c.f. course 30, Arts Calendar).

THIRD YEAR

1. *Option*.—A course of sixty hours laboratory work on embryology, including technique, with special reference to the problems of mammalian and human embryology.

2. *Option*.—A course of sixty hours laboratory work on advanced histology and cytology, including technique.

3. *Option*.—A course of lectures and laboratory work on the structure and life history of animal parasites, particularly those which infest man.

4. *Option*.—A co-operative course of lectures and conferences dealing with current biological literature and problems.

5. *Option*.—A course of lectures and laboratory work on the structure and development of the vertebrate nervous system.

Text-books: Biology: O'Donoghue, Shull, Borradaile, McFarland, Bigelow, Parker.

Embryology: McMurrich, Manual of Embryology; Bailey and Miller; Prentiss and Arey.

Mammalian Anatomy: Bensley, Practical Anatomy of the Rabbit.

Histology: Jordan, Text-book of Histology; Piersol, Normal Histology, 10th ed.; Bailey, Text-book of Histology; Schafer, Text-book of Microscopic Anatomy (Quain's Anatomy, 11th edition; vol. II, pt. 1.)

Parasitology: Chandler, Animal Parasites and Human Disease.

Heredity: Morgan, The Physical Basis of Heredity.

PHYSIOLOGY (INCLUDING GENERAL PHYSIOLOGY)

Professor of Physiology: J. J. R. MACLEOD.

Assistant Professor of Physiology: J. M. D. OLMSTED.

Lecturer: N. B. TAYLOR.

Demonstrator: W. P. WARNER.

Fellows: MISS J. LANG, C. H. BEST, E. C. NOBLE.

Part Time Fellows: MISS C. FRASER, S. U. PAGE, J. K. LATCHFORD.

Librarian: MISS M. GRANGE.

Secretarial Assistant: MISS M. E. ARMOUR.

The following courses of instruction each extending throughout the session are offered.

1. Systematic lectures; three a week during term:
 - a. General and neuro-muscular physiology.
 - b. Physiology of circulation, respiration, digestion and secretion.
 - c. Metabolism, the functions of the ductless glands and reproduction.
 - d. Physiology of the central nervous system and special senses.
2. Lectures in General Physiology.
3. Advanced lectures; two a week (optional).
4. General laboratory courses (total of 180 hours).
 - a. Neuromuscular Physiology (second year).
 - b. Circulation, respiration and digestion (second and third years).
 - c. Nervous system and special senses (third year).
 - d. Reviews and Conferences.
5. Laboratory course in General Physiology.
6. Advanced laboratory courses (optional).
7. Research in Physiology.
8. Journal Club; one hour a week.
9. Optional course Laboratory work in selected parts of subject (available to students of the third and subsequent years in the Medical faculty).

Every student must attain a certain standard in the laboratory exercises before he will be allowed to proceed to the University examinations in Physiology.

Throughout the Session oral and, as may be necessary, written examinations will be held to ascertain the extent of the student's knowledge of Physiology, and the results of these, as well as his general work in the laboratory will be used to determine his position in the University Class Lists.

In the laboratory courses the students will be required to make good all loss through breakage or otherwise.

Text-books:—Manual of Physiology, G. N. Stewart; Physiology and Biochemistry in Modern Medicine, J. J. R. Macleod, Starling's or Howell's Physiologies; Bayliss' General Physiology; Luciani's Physiology (translated by F. Welby); Monographs in Physiology (edited by B. H. Starling). *Works of Reference*:—Other works important for consultation are Marshall's Physiology of Reproduction; Schäfer's Endocrine Organs; Text-Book of Physiology (edited by E. A. Schäfer); Recent and Further Advances in Physiology (edited by Leonard Hill); C. S. Sherrington, Mammalian Physiology.

Students are urged to become members of the Students' Medical Library from which they may borrow, for home reading, books and monographs bearing on the subject of Physiology.

BIOCHEMISTRY

Professor of Biochemistry: ANDREW HUNTER.

Associate Professor of Biochemistry: HARDOLPH WASTENEYS.

Associate Professor of Zymology: H. B. SPEARMAN.

Demonstrator in Biochemistry: MISS J. MCFARLANE

Fellows: H. BORSOOK, R. G. SMITH, L. A. WEISSGERBER, J. A. MORRELL.

Secretarial Assistant: MISS M. DELAMERE.

The following are the Courses of Instruction in this department for students of Medicine.

THIRD YEAR

Lectures.—A course of lectures—two a week—covering in an elementary way the general field of Biochemistry.

Laboratory.—An introductory laboratory course in Biochemistry, six hours weekly in the Michaelmas, and three in the Easter term.

Tutorial—One hour weekly, reviewing and supplementing in the main the work of the laboratory.

Optional.—A laboratory and lecture course, of five hours a week in the Easter term, dealing with one or more of the following topics (1) the principles of nutrition; (2) hydrogen ion concentration and its importance in biology; (3) the action and properties of enzymes.

FOURTH, FIFTH AND SIXTH YEARS

Optional—Optional courses in these years will be arranged in adaptation to the number and previous training of the students who apply.

Every student must attain a certain standard in the laboratory exercises before he will be allowed to proceed to the University examinations in Biochemistry.

Throughout the Session oral and, as may be necessary, written examinations will be held to ascertain the extent of the student's knowledge of Biochemistry and the results of these as well as his general work in the laboratory, will be used to determine his position in the University Class Lists.

In the laboratory courses the students will be required to make good all loss through breakage or otherwise.

Text-Books and Works of Reference:

(a) *Elementary or General:*—Hammarsten, Text-book of Physiological Chemistry; Abderhalden-Hall, Text-book of Physiological Chemistry; Mathews, Text-book of Physiological Chemistry; Robertson, Principles of Biochemistry; Rockwood's Laboratory Manual of Physiological Chemistry.

(b) *Advanced or Special*:—Monographs on Biochemistry, edited by Plimmer and Hopkins, Robertson, Physical Chemistry of the Proteins; Taylor, Digestion and Metabolism, Lusk, Science of Nutrition; Effront, Biochemical Catalysts in Life and Industry, Euler, General Chemistry of the Enzymes; Abderhalden, Biochemisches Handlexikon; Neuberg, Der Harn.

Laboratory Handbooks:

(a) *Elementary*:—Plimmer, Practical Organic and Biochemistry; Hawk, Practical Physiological Chemistry, Folin, Laboratory Manual of Biological Chemistry; Halliburton, Essentials of Chemical Physiology, Cole, Practical Physiological Chemistry.

(b) *Advanced*:—Abderhalden, Handbuch der biochemischen Arbeitsmethoden; Ellinger, Analyse des Harns.

ANATOMY

Professor and Director of the Anatomical Department: J. PLAYFAIR
MCMURRICH.

Associate Professor of Clinical Anatomy: G. A. BINGHAM, (Ob.)

Assistant Professor in Anatomy: J. C. WATT.

Demonstrator in Anatomy: H. A. CATES.

Assistants: F. W. WESTON, R. O. FISHER, H. B. VAN WYCK, A. S. LAWSON,
E. E. SHOULDICE, K. G. MCKENZIE, L. B. ROBERTSON, P. D. SPOHN,
L. C. PALMER, E. A. MCCULLOCH, L. A. PEQUEGNAT, H. W. WOOKEY.

Secretarial Assistant—MISS G. H. DOWSLEY.

REQUIRED COURSES

Course 1. Gross Anatomy.—During the Second Year each student is obliged to dissect thoroughly the various regions of the body, following the plan outlined in a "Guide to the Dissection of the Human Body". Demonstrators will be in attendance each day for the purpose of superintending the work and of giving instruction, and will hold frequent examinations with the object of testing the student's progress. Certificates of credit in Practical Anatomy will be granted only to those students whose work has been completed to the satisfaction of the instructors in charge.

The Laboratory will be open from 9 a.m. until 5 p.m. every week-day throughout the session, with the exception of Saturdays when it will be closed at 12 noon.

In connection with the laboratory work lectures will be given by members of the staff, reviewing the work that has been completed. The object of these lectures will be to supplement the work in the Laboratory by calling attention to the relations and significance of the parts that have been studied and by elucidating with the aid of diagrams and models the anatomy of difficult and important structures.

Lectures.—During the Michaelmas Term of the Third Year a course of lectures will be given on the Anatomy of the Central Nervous System.

In connection with the above course of lectures the class will be divided into small sections, to each of which a Demonstrator will be assigned, for the purpose of a practical study of the Anatomy of the Brain.

Course 3. Topographic Anatomy.—During the Easter Term of the Third Year a course of lectures will be given dealing with the anatomy of special regions or organs. This course is intended to be supplemental to Course 1, attention being given to the practical applications of the structure and regional anatomy of the parts considered.

OPTIONAL COURSES

These courses are designed for those students who may desire a more intensive study of certain systems of organs than is afforded by the required course. They are open only to those who have completed the second, or in some cases, the third year of the Medical Course. All the courses listed will not be offered in any one year, but selections will be made from them according to the demand and to the facilities of the Laboratory. The time required for each course will be the equivalent of two hours per week throughout the year.

Course 4. *General Gross Anatomy*.—This course is designed to give opportunity for a review of the Gross Anatomy of the Human Body. It is based largely on the study of sections and is open to students who have completed the *second* year of the Medical Course.

Course 5. *Anatomy of the Joints*.—A study of the anatomy and actions of the joints, with especial reference to the anatomy of dislocations. Open to students who have completed the second year of the Medical Course.

Course 6. *Anatomy of the Digestive System*.—This course will include an intensive study of the development, minute structure and gross anatomy of the organs of the digestive system. The complete course will extend throughout two years, but either portion of it may be elected. Open to students who have completed the *second* year of the medical course.

Course 7. *Anatomy of the Genito-Urinary Organs*.—An intensive study of the development, minute structure and gross anatomy of the Urinary and Genital organs. Open to those who have completed the *second* year of the Medical Course.

Course 8. *The Anatomy of the Eye and Orbit*.—Intended for those who expect to specialize in ophthalmology. Open to students who have completed the *third* year of the Medical Course.

Course 9. *The Anatomy of the Ear, Nose and Throat*. Intended for those who expect to specialize in Oto-laryngology. Open to students who have completed the *third* year of the Medical Course.

Course 10. *Anatomy of the Lymphatic System*.—A study of the development, structure and distribution of the Lymphatic organs and with special attention to their medical and surgical significance. Open to students who have completed the fourth year of the Medical Course.

Course 11. *Research Course*.—Opportunities will be afforded for properly qualified students for carrying on investigation in anatomical problems. Arrangements for this Course must be made with the Professor of Anatomy.

Text-books.—Piersol; Gray; Morris; Cunningham's Text-book; McMurrich's Development of the Human Body, Guide to the Dissection of the Human Body for the use of Students in the Anatomical Laboratory of the University of Toronto.

Reference Text-books.—Spalteholz, Hand-Atlas of Human Anatomy; Toldt's Atlas of Human Anatomy; Sobotta's Atlas and Text-book of Human Anatomy; Eycleshymer and Shoemaker, Cross-Section Anatomy; Quain's Anatomy; Barker's The Nervous System; Johnston, Nervous System of Vertebrates; Villiger, Brain and Spinal Cord; Herrick, Introduction to Neurology; Ranson, Anatomy of the Nervous System; Tilney and Riley, The Form and Functions of the Nervous System, Von Bardeleben's Handbuch der Anatomie; Rawlings, Landmarks, Treves, Applied Anatomy, Davis, Applied Anatomy.

PHARMACY AND PHARMACOLOGY; MATERIA MEDICA

Professor: V. E. HENDERSON.

Assistant Professor—N. C. SHARPE

Instructors in Pharmacy: J. A. MACDONALD, J. C. HALLAMORE,
D. BIRKETT.

Special Lecturer: F. C. BANTING.

Class Assistant in Pharmacology: F. W. W. HIPWELL.

Secretarial Assistant: MISS JEAN DEAS.

THIRD YEAR

Two courses of laboratory work accompanied by lectures and laboratory talks are given.

Practical Work.—LABORATORY COURSE I. Experimental pharmacology. In this course the student obtains an opportunity to become familiar with representatives of the drug-stuffs composing the various pharmacological groups. The chief object of the course is to get the student into the habit of accurate observation of the effects produced by drugs and to be able to describe them in accurate pharmacological language. In consequence a great deal of attention is given to the note books kept by each student. The course is accompanied by many mammalian demonstrations. The tracings of all demonstrations are analysed by each student.

LABORATORY COURSE II. Practical Pharmacy. This course is very brief, consisting only of a few hours' work on the chemical and physical incompatibles and in dispensing several mixtures, pills and ointments, in order that the student may obtain such insight into dispensing as is necessary to enable him to write prescriptions intelligently.

Total of these two courses, 90 hours.

Arrangements have also been made with the Toronto General Hospital the Hospital for Sick Children and the Western Hospital, by which the students of this year will be drafted in turn to act as Assistants in the Hospital Dispensaries for a period of a week.

Lectures.—A course of lectures on general pharmacology (35 in all). This course is designed to supplement and extend the knowledge gained in the laboratory and from the prescribed text-book.

Prescription Writing.—Each student is expected to hand in answers to the problems in prescription writing announced each week. These are corrected and returned, and opportunity is given for the discussion of any difficulties, with the staff during laboratory hours. Informal talks are also given from time to time as needed.

Text-books.—Pharmacy and Materia Medica, Henderson; Pharmacology, Dixon.

Reference Text-books:—Pharmacology, Cushny, Sollmann, Bastedo, Greene; Prescription Writing:—Bennett, Medical and Pharmaceutical Latin; Eggleston, Prescription Writing; Materia Medica and Prescription Writing, Bethea.

TOXICOLOGY

Professor of Pharmacology: V E. HENDERSON.

A course of ten lectures is given dealing with the pathology, pharmacology, symptomology and treatment of the more important poisons which are commonly the cause of either forensic or industrial cases of poisoning.

MEDICINE

Emeritus Professor of Medicine ALEXANDER MCPHEDRAN.

Professor of Medicine: DUNCAN GRAHAM.

Associate Professor of Medicine: WILLIAM GOLDIE.

Clinicians in Medicine. R G. ARMOUR, G F. BOYER, W. R. CAMPBELL, A. H. CAULFELD, F. A. CLARKSON, E. E. CLEAVER, H. K. DETWEILER, H. A. DIXON, J. H. ELLIOTT, A. A. FLETCHER, N. GWYN, R. HODGE, G. W. HOWLAND, H. S. HUTCHISON, R. JAMIESON, J. D. LOUDON, A. G. MCPHEDRAN, J. H. MCPHEDRAN, W. F. MCPHEDRAN, A. J. MACKENZIE, L. MURRAY, W. OGDEN, J. A. OILLE, T. J. PAGE, H. C. PARSONS, C. A. RAE, F. W. ROLPH, D. KING SMITH, CHAS. SHEARD, Jr., G. S. STRATHY, E. J. TROW, G. S. YOUNG

Clinical Microscopy, Demonstrator: G. W. LOUGHEED.

Assistant Demonstrator: A. B. MOFFAT.

Technical Assistants: MISS P. DENNE, MISS R. E. RATZ.

Secretarial Assistant: MISS M. K. HARVIE.

THIRD YEAR.

Lectures:—During the Michaelmas term two lectures are given weekly on methods of physical examinations with the explanation and interpretation of physical signs. In the Easter term two lectures are given weekly on history taking, and methods of examination of the central nervous system, followed by an introduction to the study of Medicine dealing with the physiological aspects of disease.

Clinics:—Practical instruction in Clinical Medicine is given in the Hospital Wards and in the University Laboratories throughout the session. The Class is divided into small groups each of which is in charge of a clinician.

Instruction in the Clinics follows as closely as possible the work discussed in the lectures.

Clinical Microscopy.—Demonstrations and practical instruction are given in the microscopical examination of blood, urine, faeces, stomach contents, sputum, cerebrospinal fluid, transudates and exudates, together with the practical application of these examinations in the diagnosis of disease.

Instruments.—Students beginning Clinical work are strongly advised to supply themselves with the following instruments: Stethoscope, Tape Measure, Dermograph, Haemocytometer (Levy-Neubauer), Haemoglobinometer (Dare or Sahli), Thermometer, Head-mirror, Ophthalmoscope, Laryngoscope, Microscope with Condenser and Oil Immersion Lens.

Special arrangements have been made for obtaining these instruments

Text-books.—Pathological Physiology, Hewlett; Physical Diagnosis, Cabot; Clinical Methods, Hutchison and Rainy; Clinical Diagnosis, Emerson; Medicine, Osler, Taylor; Physical Diagnosis, Rose, Chemical and Microscopical Diagnosis, Wood.

FOURTH YEAR

Lectures.—In the Fourth Year a course of thirty lectures is given on the different types of disease dealing with the subject from the pathological physiological standpoint. This is supplemented by a course of sixteen lectures on Diseases of the Nervous System.

Clinics.—The students of the Fourth Year devote the greater part of their time available for Clinical Medicine to the Medical Wards, examining patients, taking histories and carrying out the Clinical Laboratory investigation of their cases under the direction of the Staff.

The Class is divided into small groups and Ward Clinics are given on the different types of disease.

Groups consisting of one-sixth of the Year attend clinical demonstrations of Infectious Diseases at the City Isolation Hospital and the Hospital for Sick Children once a week, for a period of ten weeks.

A weekly Clinic is held in the Hospital amphitheatre at which selected cases illustrating the different types of disease are presented.

Clinical and Pathological Conference.—Weekly Clinical and Pathological Conference will be held throughout the Easter session. Abstracts of the histories of the fatal cases of the week, with diagnosis made before the autopsy, are read. The specimens are then demonstrated, followed by a discussion of the case.

During the session, each student is required to prepare at least five complete records of medical cases. These records must be certified as satisfactory by the Clinician in Charge of the Clinic of which the student is a member.

FIFTH YEAR.

During a period of ten weeks one-third of the Class devotes its whole time to Clinical Medicine. Each student is required to take charge of a number of patients in the Wards personally, recording the results of his Clinical and Laboratory investigations on the cases under his care and attend at the General Medical Clinic of the Out Patient Department twice a week and assist in the examination of cases.

Each group has one Ward Clinic daily and attends in rotation Special Clinics in the Out Patient Department on Diseases of the Skin, Nervous System, Tuberculosis and Syphilis.

Two theatre Clinics a week are given in the Hospital amphitheatre at which selected cases are presented.

A weekly Clinical Pathological Conference is held at which students are required to report the results of their Clinical examination on fatal cases under their care. This is followed by a demonstration of the autopsy specimens and a discussion of the Clinical and Pathological findings.

The students of the Fifth Year will receive special instruction in Physiotherapy. The value of massage, gymnastics, electricity, hydropathy, etc., in the treatment of medical cases will be demonstrated.

FOURTH AND FIFTH YEAR

Text Books—Diseases of the Chest, Norris and Landis, Diseases of the Heart, Mackenzie; Diseases of the Heart and Aorta, Hirschfelder; Clinical Disorders of the Heart-beat, Lewis; The Soldiers Heart and the Effort Syndrome, Lewis; Diseases of the Digestive Canal, Cohnheim; Diseases of the Nervous System, Purvis Stewart, Diseases of the Skin, Sequeira, Hartzell, Pussey; Pulmonary Tuberculosis, Fishberg; Diagnostics and Treatment of Tropical Diseases", Stitt; Diseases of the Skin, Schamberg.

Reference Books:—A System of Medicine, XI Vols., Allbutt and Rolleston, Modern Medicine, V Vols., Osler and McCrae; Monographic Medicine, VI. Vols, Barker; Oxford Loose Leaf Medicine, Christian and MacKenzie; Nelson's Loose Leaf Medicine; Internal Medicine", III. Vols., Wilson; Diseases of the Arteries and Angina Pectoris, II. Vols, Allbutt, Symptoms of Visceral Disease, Pottenger; Diseases of the Nervous System, Jelliffe and White, Studies in Deficiency Disease, McCarrison; Diseases of the Skin, Stelwagon and Gaskill; Diseases of the Digestive System (Vols. 1 and 2), Bassler.

PAEDIATRICS

Associate Professor of Medicine in Charge of Paediatrics: ALAN BROWN

Clinicians in Medicine in the Sub-department of Paediatrics: GLADYS BOYD,
ALAN W. CANFIELD, ARTHUR M. GOULDING, BEVERLEY HANNAH,
A. P. HART, EDWARD A. MORGAN, GEORGE R. PIRIE, ROY SIMPSON,
GEORGE E. SMITH, FREDERICK TISDALE.

Chemist to the Sub-department of Paediatrics: ANGELIA M. COURTNEY.

Assistant Chemist: IDA F. MACLACHLAN.

FOURTH YEAR.

Clinical Lectures:—The students of the Fourth Year will devote most of their time to learning the essential principles in paediatrics, and the

difference in the manifestation of disease between adult and child. A series of thirty-two Clinical Lectures will be given, illustrated by Plates, Lantern Slides and Morbid Specimens, also by the presentation of patients when the nature of the subject under discussion makes it desirable. The subjects included in these Clinical Lectures are Physiology and Pathology of digestion in infants, percentage and caloric method of feeding; classification of digestive disturbances; deficiency diseases of childhood; congenital and acquired cardiac disease, tuberculosis; syphilis, nephritis; acute conditions arising in the new born infant and child welfare

FIFTH YEAR.

In the Fifth Year time will be devoted wholly to Clinics—Bedside and Out-patient. In addition to this each student is required to spend seven hours in one of the child welfare clinics, conducted by the Department of Child Hygiene. In these Clinics, he is given an idea of the normal feeding of infants and children. During the Fifth Year Course three hours' practical work is required of each student in the milk modifying laboratory of the Children's Hospital, where he is taught the home modification of milk formulae.

Fellowships.—The Sub-Department of Paediatrics is prepared to offer two full-time Fellowships in Diseases of Children, to graduate students. These Fellowships will include a certain amount of clinical work as well as laboratory investigation, thus serving to keep the research worker in touch with clinical problems and further his interest in Clinical Paediatrics.

Text-books.—(1) Diseases of Infancy and Childhood, Holt; (2) Infant Feeding, Grulee; (3) Diseases of Nutrition and Infant Feeding, Morse and Talbot.

Reference Books.—(1) Diseases of Children, Garrod, Batten and Thurstfield; (2) Common Disorders and Diseases of Childhood, Still; (3) System of Paediatrics (3 volumes), Dunn.

THERAPEUTICS

Professor of Therapeutics: R. D. RUDOLF.

Lecturer in Anaesthesia: S. JOHNSTON.

Demonstrators in Therapeutics: C. E. C. COLE, W. V. WATSON.

Fellow: F. M. R. BULMER.

Assistants in Anaesthesia: T. R. HANLEY, M. D. MCKICHAN, W. H. CARVETH, C. H. ROBSON, J. J. HURLEY, H. J. SHIELDS.

Therapeutics is taught in the two final years, and is made as practical as possible.

FOURTH YEAR

Lectures.—In the Fourth Year a course of lectures is given in which the general principles of the subject are considered in a systematic way, emphasis being laid upon the fact that Therapeutics includes far more than

the employment of drugs. The whole matter is considered more from the standpoint of disease than from that of drugs and other remedies. Diet, specific therapy, hydrotherapy, the various forms of physio-therapy, and climate are also dealt with. Once a week one-third of the class are given a practical demonstration at the hospital of methods of therapy, patients being freely used to illustrate the points.

FIFTH YEAR

Clinical Work.—In the final year the students are taken in groups at the General Hospital and the different methods of dealing with diseased conditions are demonstrated, generally upon actual patients. Here also prescription writing is practised. These demonstrations are quite informal and are conducted five times a week in the medical theatre at the hospital and in the wards.

Students of the Fourth and Fifth years will receive individual practical instruction in the administration of anaesthetics. They are each required to give six anaesthetics before graduating.

Text-book:—Hare's Practical Therapeutics; Rudolf's Medical Treatment; B. Sherwood-Dunn, Regional Anaesthesia.

Reference Text-books:—Hutchinson & Collier's Index of Treatment, Friedenwald and Ruhrah, Diet in Health and Disease; Wood, Therapeutics, its principles and practice; Potter, Otrner's Treatment of Internal Diseases; Cushny, Pharmacology and Therapeutics; Shoemaker, Materia Medica and Therapeutics; Hare, System of Therapeutics; Forchheimer's General and Special Treatment of Diseases; Forchheimer's Therapeusis of Internal Diseases; Da Costa, Medical Treatment; Osborne's Principles of Therapeutics; Randle Short's Prognosis and End-results of Treatment; Sajou, Analytic Cyclopaedia of Practical Medicine.

SURGERY AND CLINICAL SURGERY

Professor of Surgery: CLARENCE L. STARR.

Professors of Clinical Surgery: A. PRIMROSE, H. A. BRUCE.

Associate Professor of Clinical Surgery and Clinical Anatomy:
G. A. BINGHAM, (Ob.)

Associate Professors of Clinical Surgery: F. N. G. STARR, P. W. H. MCKEOWN, S. M. HAY.

Associates in Surgery and Clinical Surgery: C. B. SHUTTLEWORTH, G. SILVERTHORN, E. S. RYERSON, W. A. SCOTT, W. W. JONES, W. E. GALLIE.

Demonstrators in Clinical Surgery: A. B. WRIGHT, M. H. V. CAMERON, N. S. SHENSTONE, G. E. WILSON, R. E. GABY, A. H. PERFECT, D. E. ROBERTSON, OLIVER MABEE, F. A. CLELAND.

Assistants in Clinical Surgery: ROBIN PEARSE, R. R. GRAHAM, L. B. ROBERTSON, C. H. HAIR, C. B. PARKER, H. E. CLUTTERBUCK, G. C. MCINTYRE.

Temporary Assistants: T. A. ROBINSON, R. H. THOMAS, W. A. COSTAIN, A. B. LE MESURIER, J. H. WOOD, R. I. HARRIS, E. E. SHOULDICE, J. C. MCCLELLAND, R. A. MCCOMB, T. A. J. DUFF, R. M. JANES.

THIRD YEAR SURGERY.

1. *Lectures.*—A course consisting of an introduction to the general principles of surgery.

2. *Clinical Work.*

(a) Clinical study in the Out-patient Department or the Ward. Each clinical class will be taught the surgical conditions following, with History Taking, Surgical Landmarks, and the methods of making physical examinations as applied to them: Inflammation; Suppuration and Abscess; Surgical conditions of the skin and subcutaneous tissues; Bursitis, Tenosynovitis; Surgical affections of the Lymph Glands; Wounds; Haemorrhage and Thrombosis; Sepsis, infection and infectious diseases; Ulceration; Gangrene; the general features of Fractures, Dislocations and Sprains; Hernia; Bandaging

These various clinical conditions are followed up by practical demonstrations of each in the laboratory.

These conditions shall constitute the subjects of examination.

(b) A course of surgically applied clinical anatomy. This course will be conducted in the clinical theatre of the Toronto General Hospital. Regional anatomy will be studied on and illustrated by patients suffering from surgical conditions in different parts of the body. The anatomy of

the different regions will be demonstrated by diagrams upon the black-board, by frozen sections and by the use of the lantern.

(c) A series of demonstrations in surgical pathology. These demonstrations will be conducted conjointly by the clinicians and the pathologist and will consist of elementary demonstrations of the gross pathology, the histology, the bacteriology and the analyses of the blood, urine, etc., including not only microscopic findings, but the pathological chemistry necessary for complete clinical investigation. Individual types will thus be presented for the purpose of illustrating the steps necessary in the clinical study of surgical cases as indicated in the gross pathology together with the microscopic and chemical findings.

FOURTH YEAR SURGERY.

1. *Lectures*.—Thirty lectures are given throughout the session on some of the general principles of surgery. Short courses are included on the special surgery of certain regions of the body, e.g., the abdomen; the head and neck; the extremities, etc., the courses varying from year to year.

2 *Clinical Work*.—(a) Clinical work in the wards will be conducted according to the time-table provided. During the year the student is taught to make a complete examination of surgical cases in order that he may be able to arrive at a diagnosis and to learn the appropriate scientific treatment. The following conditions will be studied and will be, as far as possible, the subjects of the clinics: (1) Injuries and diseases of the bones and joints; (2) the surgery of the neck, acute and chronic inflammation primary and secondary new growths, diseases of the thyroid gland; (3) surgery of the thorax, empyema, tumours of the breast; (4) surgery of the abdomen, appendicitis, cholecystitis, ulcer of the stomach and duodenum, cancer of the stomach, general peritonitis, tuberculous peritonitis, gall stones, acute and chronic intestinal obstruction, abdominal injuries, haemorrhoids, fistula in ano, anal fissure; (5) the surgery of the kidney, stone, pyonephrosis, surgical conditions of the bladder and use of the cystoscope; (6) the surgery of the scrotum and testes, acute and chronic inflammation, tumours, hydrocele, varicocele; (7) the surgery of mouth, ulcers, tumours of the lip, tongue and gum, tumours of the upper and lower jaw; (8) diseases and injuries of blood and lymph-vascular systems; (9) surgery of the extremities including fractures, amputations, dislocations, injuries to joints, and injuries to nerves; (10) injuries and diseases of the head and spine.

A special course in orthopaedic surgery will be given in the Hospital for Sick Children.

(b) Each student will be required to take three complete surgical histories during the year. Each history is to be written in accordance with the standard of the American College of Surgeons. This work will

be directed by the resident or senior house-surgeon. One history is to be left at the secretary's office at the end of each trimester. Each history after being initialed by the clinician is to be examined by the Professor of Clinical Surgery.

(c) A course of surgically applied clinical anatomy.

This course will be conducted in the clinical theatre of the Toronto General Hospital. Regional anatomy will be studied on and illustrated by patients suffering from surgical conditions in different parts of the body. The anatomy of the different regions will be demonstrated by diagrams upon the blackboard, by frozen sections and by the use of the lantern.

(d) A series of demonstrations in surgical pathology.

These demonstrations will be conducted conjointly by the clinicians and the representatives of the Department of Pathology and will consist of demonstrations of the gross pathology, the histology, the bacteriology and the analyses of the blood, urine, etc., including not only microscopic findings, but the pathological chemistry necessary for complete clinical investigation. The demonstrations will illustrate the steps necessary in clinical study, and the appropriate treatment, based upon the gross pathology, together with the microscopic and chemical findings.

FIFTH YEAR SURGERY.

The work of the Fifth Year in Surgery is entirely clinical, including one weekly mid-day clinical lecture.

Clinical Work.

(a) Two clinics will be given in each week to the students of this year. The clinical classes in each Hospital will consist of the students assigned to the surgical services in the various Hospitals.

(b) The students in this year are assigned at the Secretary's Office to the surgical services at the Toronto General, St. Michael's, Western and Hospital for Sick Children, the number of men to each service depending on the number of students in the class. These men will be required to act as clinical clerks and to perform the two following groups of duties, the students alternating at the end of each five weeks.

GROUP 1.

(1) To act as assistants to the House Surgeon and to be prepared to carry out his instructions at all times.

(2) To take the history of each patient within twenty-four hours of his admission to the wards. To record the physical examination and to do and record the necessary laboratory work.

(3) To attend all the operations performed on his service, and to be prepared to act as assistant.

(4) To do whatever dressings are detailed to him by the House Surgeon.

(5) In the event of an autopsy on any patient who has been under his charge, to assist and make the necessary records.

GROUP 2.

(6) To work in the Out-patient Department and Emergency Departments.

(7) That he be required to attend the clinics given to the Third and Fourth Years on his service, and to be prepared to give a detailed account of the cases being presented, to the clinician, and if necessary, under the direction of the clinician, to act as demonstrator. Further, that he shall be required to provide and prepare the material for each clinic to the Third and Fourth Years.

(8) That during his term of service he shall be prepared when directed to do so, to assist in giving and to give anaesthetics to the patients on his service under the supervision of the anaesthetist.

(9) That he be responsible for keeping a record of the clinics given on his service and the passing of this record on to the next clinician when the classes change.

(c) Once a week a conference will be held in the Pathological Department, when the Professor of Pathology and the members of the Clinical teaching staff will meet to discuss the Pathological material which has been sent from the clinic to the Pathological Department during the preceding week. These conferences between the Pathologist and the Clinician will form a very important part of the tuition of the student in Surgery in the Fifth Year

The students of the Fifth Year will receive special instruction in physiotherapy. The value of massage, gymnastics, electricity, hydropathy, etc., in the treatment of surgical cases will be demonstrated.

Text-books.—Principles of Surgery, Rose and Carless, Spencer and Gask, Da Costa; Minor Surgery, Foote; Surgical Diagnosis, Gould; Clinical Surgical Diagnosis, de Quervain (Trans.); A Synopsis of Surgery, Ernest W. Hey Groves; Surgical Materials and Their Uses, MacLennan.

Reference Text-books—Principles of Surgery, Choyce, Thomson and Miles, Oxford Loose Leaf Surgery, Burghard and Kanavel; Surgical Treatment: Cheyne and Burghard, Binnie, Kocher, Alexis Thomson; Genito-Urinary Surgery: Thompson Walker, Kelly and Burnham; Orthopaedic Surgery: Jones, Whitman; Fractures and Dislocations: Scudder; Surgery of the Chest: Paget; Lungs: Fowler and Godlee; Surgery of the Brain: Rawlings; Operative Surgery: Horsley, Rowlands and Turner; After Treatment of Surgical Patients: Bartlett; On the Spleen, Moynihan.

OBSTETRICS AND GYNAECOLOGY

Professor of Obstetrics and Gynaecology: B. P. WATSON.

Associate Professor of Obstetrics: K. C. McILWRAITH.

Associate Professor of Gynaecology: F. W. MARLOW.

Associate Professor of Obstetrics and Gynaecology: W. B. HENDRY.

Associate in Obstetrics: J. A. KINNAR.

Demonstrators in Obstetrics and Gynaecology: J. G. GALLIE, W. A. SCOTT
R. W. WESLEY, N. D. FRAWLEY, W. W. LAILEY.

FOURTH YEAR

Lectures.—Obstetrics:—A course of lectures illustrated by diagrams, lantern slides and models will be given. A syllabus indicating the scope of the work is provided. Stated generally, the course consists of two parts. The first part deals with the anatomy and physiology of the female organs of reproduction; the anatomy, physiology and management of normal pregnancy, labour and the puerperium, and the care of the infant. The second part is concerned with abnormal conditions arising during pregnancy, labour, and the puerperium, and with maladies of the infant.

Practical demonstrations on anatomy, the mechanism of labour, the use of obstetrical instruments, etc., will be given to small sections of students.

Gynaecology:—A course of lectures illustrated by pathological specimens, diagrams and lantern slides will be given. A syllabus is provided. The lesions of each organ are considered in detail and the methods of gynaecological diagnosis and treatment indicated.

Clinical Work.—Obstetrics:—The student attends clinics at the Toronto General Hospital or at St. Michael's Hospital. At these clinics practical instruction is given in the examination of patients, the diagnosis of pregnancy, the management of labour and the puerperium and the care of the infant.

Gynaecology:—Clinical instruction is given at the Toronto General Hospital, and the Western Hospital, in the method of case taking, the examination of patients, the use of instruments, and in the conduct of operations.

Pathological Demonstrations:—The naked eye and microscopic pathology of the common obstetrical and gynaecological lesions will be demonstrated in the museum.

FIFTH YEAR

Obstetrics.—The student attends the Obstetrical Hospital for a period of five weeks during which time he is given an opportunity of seeing all the work of the hospital, and of assisting in the management and treatment of cases. He is also required to attend patients in their own homes and to perform other duties in connection with the Out-Patient Service. Clinical lectures are given once a week on interesting and abnormal cases.

Gynaecology.—Clinical instruction in the examination and diagnosis of gynaecological cases is given to small sections of students. Each student is required to act as clinical clerk to the cases assigned him, to be present at any operations required, and to follow the after-treatment. Operations will be performed on stated days and at these the members of the clinic may be present.

Pathological Demonstrations.—A series of demonstrations in continuity with those held during the fourth year will be given in the museum.

Text-books:—

Obstetrics:—Eden; Berry Hart; Hirst; Edgar; Whitridge Williams; Jellett; Galabin; De Lee.

Gynaecology:—Barbour & Watson; Graves; Dudley; Gilliam; Crossen; Penrose; Eden & Lockyer; Ashton; Montgomery.

Reference Text-books:—

Obstetrics:—Bumm; Winckel; Munro Kerr, *Operative Obstetrics*; Davis, *Operative Obstetrics*; Lea, *Puerperal Infection*; Ballantyne, *Antenatal Pathology*.

Gynaecology.—Kelly, *Operative Gynaecology*; Berkeley & Bonney, *Gynaecological Surgery*; Winter & Ruge, *Gynaecological Pathology*, translated by Clark; Cullen, *Cancer of the Uterus*.

OPHTHALMOLOGY

Professor: J. M. MACCALLUM.

Demonstrators: D. N. MACLENNAN, W. H. LOWRY, M. LYON, W. W. WRIGHT, F. A. AYLESWORTH, C. E. HILL.

FOURTH YEAR

Instruction will be given by quizzes, recitations or lectures. The class will be divided into small sections. In each section the applied anatomy of the eye, orbit and surrounding structures will be considered, followed by instruction in the use of the ophthalmoscope, retinoscope and other instruments of diagnosis. The methods of external examination of the eye, the use of the test type, test lenses and the principles of refraction will be thoroughly dealt with.

FIFTH YEAR

Instruction will be wholly clinical and practical, and will include Ophthalmoscopy and its relations to general medicine, advanced refraction. Each student will be required to determine the refraction of patients in the Out-Patient Clinic and must, for this purpose, supply himself with an ophthalmoscope and a retinoscope. When possible the students will be shown the more usual operations on the eye.

There will be a short course of didactic lectures.

Ophthalmology:—

Text-books:—J. Edward Jackson; May; Mayou; Nettleship; Parker; Parsons; Swanzy; Veasey; Wood & Woodruff; Sym; Marshall.

Works of Reference:—de Schweinitz; Weeks; Fuchs; Posey & Wright; Theobald; Ball.

OTO-LARYNGOLOGY

Professor: D. J. GIBB WISHART.

Assistant Professors: GILBERT ROYCE, P. G. GOLDSMITH.

Associate: GEORGE M. BIGGS.

Clinicians: EDMUND BOYD, J. C. CALHOUN, ANGUS CAMPBELL, J. SPROULE-MANSON.

Pathologist:

Assistant:

The course of instruction in oto-laryngology is carried on in the Toronto General Hospital, where the facilities placed at the disposal of the students are unusually complete. There is an indoor service of twenty beds, and in the outdoor, in addition to the large clinic, where the fifth year students receive instruction, there is a room set aside for the fourth year classes, with eight cubicles for examination purposes.

Clinics are also provided at the Hospital for Sick Children which present unusual opportunities for study. There is an indoor service which varies from ten to fifteen beds. In the outdoor, the clinics are very largely attended, a feature of this being the establishment of separate clinics for ear cases.

This course is carried on during both the fourth and fifth years of the curriculum.

FOURTH YEAR

In the fourth year the students will receive instruction in:

- (1) The normal anatomy of the ear, nose and throat.
- (2) The methods of using the head mirror and the various instruments required in examining the ear, nose and throat.
- (3) The ordinary tests for hearing.
- (4) The recognition of the ear, nose and throat, in their normal conditions, as exemplified by clinical material.

At the close of the session a clinical examination will be held.

FIFTH YEAR

In the fifth year the students will be divided into small groups for the purpose of studying the commoner pathological conditions affecting the various organs, and as much clinical material as possible will be utilized for the purposes of personal observation.

A series of lectures will be delivered upon the various diseases of the ear, nose and throat, ordinarily met with by the general practitioner.

At the final (fifth year) examination the test will be clinical.

Text-books:—Porter, Diseases of the Throat, Nose and Ear, 3rd ed.; Lake, Diseases of the Ear; Parker, Throat and Nose; Gray, Ear; Coolidge, Diseases of the Nose and Throat.

For Reference:—McKenzie, Diseases of Throat, Nose and Ear; St. Clair Thomson, Throat and Nose; Milligan and Wingrave, Diseases of the Ear; Lambert Lack, Throat and Nose; Watson Williams, Throat and Nose; Phillips, Throat, Nose and Ear.

PSYCHIATRY

Professor of Psychiatry: C. K. CLARKE.

Associate of Psychiatry: HARVEY CLARE.

Special Lecturer in Psychology: E. A. BOTT.

Demonstrators F. S. VROOMAN, D. R. FLETCHER.

FOURTH YEAR

Lectures.—A series of didactic lectures is given, outlining some of the more important psychoses.

FIFTH YEAR

Clinical Work.—A clinical course will be given. The student will be afforded opportunity to obtain a practical knowledge of psychiatry, and to study the laboratory and clinical methods employed in the diagnosis and treatment of various forms of insanity.

Text-books:—Clinical Psychiatry, Diefendorf; Psychiatric Neurological Examination Methods, by Wimmer Hoisholt; Mental Diseases, by Walter Von Gulick; Dementia Praecox and Paraphrenia, by Emil Kraepelin; Outlines of Abnormal Psychology, Bridges.

PATHOLOGY

Professor of Pathology and Bacteriology and Curator of the Museum and Laboratories: J. J. MACKENZIE.

Assistant Professor of Bacteriology: H. B. MAITLAND.

Lecturer of Surgical Pathology and Curator of the Pathological Museum: W. L. ROBINSON.

Lecturer in Pathology: W. MAGNER.

Demonstrators of Pathology: I. H. ERB, A. B. LEMESURIER, G. F. LAUGHLIN, G. R. PHILP, A. MCKAY.

Fellows in Pathology: G. C. CAMERON, J. A. LINTON, G. H. EAGLES, S. L. E. DANBY.

The courses of instruction are as follows:—

THIRD YEAR

Students receive a course of lectures and practical laboratory exercises in general Bacteriology, including media making, staining and cultivation of pathogenic micro-organisms, the practical isolation and identification of the most important bacteria pathogenic to man. With this is combined a short demonstration course on the phenomena of inflammation and repair.

FOURTH YEAR

Lectures.—1. A course of lectures in General Pathology is given during the Michaelmas and Easter Terms.

Practical Work.—2. A laboratory course in Pathological Histology is held three afternoons a week during both terms, illustrating general pathological conditions, including inflammation (acute and chronic) repair, tumours, etc.

3. A practical laboratory class in haematology and clinical microscopy.

FIFTH YEAR

Lectures.—1. A course of didactic lectures is delivered upon selected chapters of special pathology.

Practical Work.—2. A laboratory course in Pathological Histology takes place four afternoons a week during the Michaelmas Term. The work taken up in this class illustrates the special pathology of the organs. Alternating with this class are a series of Museum Demonstrations arranged to illustrate the course in Pathological Histology.

3. Throughout the Session autopsies are held at the three Hospitals which students are required to attend and take full notes. On the autopsies they have witnessed they are subsequently examined.

4. Once a week during the Easter Term a Clinical conference on autopsy material is held at the General Hospital.

SIXTH YEAR

1. The routine work for all students of the Sixth Year will consist of attendance and assistance at autopsies. Upon such cases as the students have studied in the wards full bacteriological and histological studies will be required.

2. A weekly conference on autopsy material will be held for the whole class.

3. Advanced classes will be held for students who have Honour standing, and for such other students whose work is of such a character as to permit them to do elective work.

An advanced laboratory class in surgical pathology may be arranged for similar students who can fulfil the same conditions.

Text-books:—

Pathology:—Adami, Pathology (General), vol. I.; (Special), vol. II.; Adami & McCrae, Text-book of Pathology; Delafield & Prudden, 11th ed.; MacCallum, A Text-book of Pathology; Mallory, Text-book of Pathological Histology; Pembrey & Ritchie, General Pathology.

Bacteriology:—Hiss and Zinsser; Muir and Ritchie; Park.

PATHOLOGICAL CHEMISTRY

Professor of Pathological Chemistry: V. J. HARDING.

Assistant Professor of Pathological Chemistry: J. B. COLLIP.

Demonstrators of Pathological Chemistry: D. H. BODDINGTON, S. QUINT.

Fellows: O. GAEBLER, T. G. H. DRAKE.

Secretarial Assistant: MRS. W. D. PALMER.

THIRD YEAR

Practical Work.—Students receive practical instruction in the chemical methods employed in the examination of excreta, secretions, organs and body fluids, with special reference to the study and diagnosis of disease.

As occasion requires, the laboratory exercises are coordinated and supplemented by demonstrations and lectures.

The student will not be permitted to proceed to the University examination unless he has satisfactorily performed all the work of the class, and has paid for any apparatus he may have lost, damaged, or destroyed.

FOURTH YEAR

Lectures.—A course of lectures, extending throughout the year, is given on general disorders of the chemical processes of the body.

Clinical Laboratory.—To each student of the Fourth and Fifth years there is assigned, in the Department of Pathological Chemistry, a locker with apparatus and reagents, which he is expected to utilize in the conduct of all chemical examinations necessary to the proper study of the cases under his charge. Each Fourth Year student shall carry out in the laboratory at least ten complete urine analyses upon ward cases on which he is receiving clinics. Such analyses shall be recorded both in the department of Pathological Chemistry and the department of Medicine or Surgery. For the guidance of the student in such work an instructor is in regular attendance at a special hour each day. Occasional demonstrations will be given each trimester on the findings on ward cases representing different types of metabolic disturbance.

FIFTH YEAR

In addition to the routine clinical laboratory work, an advanced laboratory course is offered for students whose record is such as to permit them to do elective work. At the end of the Fifth year the student is required in surrendering his locker, to make good all loss of apparatus by breakage or otherwise. Until he has done so, he will not be permitted to sit for the final examinations.

Text-books:—Hawk, Practical Physiological Chemistry; Mathews, Physiological Chemistry; Wells, Chemical Pathology.

Reference Books:—Lusk, Science of Nutrition; Von Fürth (trans. Smith), Chemistry of Metabolism.

HYGIENE AND PREVENTIVE MEDICINE

Professor: J. G. FITZGERALD.

Assistant Professor: R. D. DEFRIES.

Assistant Professor: D. T. FRASER.

Director University Health Service and Lecturer in Hygiene: G. D. PORTER.

Demonstrator in Industrial Hygiene: J. G. CUNNINGHAM.

Demonstrator in Sanitary Chemistry: H. M. LANCASTER.

Demonstrator in Hygiene: P. J. MOLONEY.

Assistant—MISS B. K. MOSSOP.

Secretarial Assistant—MISS M. T. ALLEN.

The Department of Hygiene and Preventive Medicine provides a course of lectures and demonstrations in Preventive Medicine, Hygiene, and Sanitation, for students in the fourth year in the Faculty of Medicine.

Lecture courses are provided also in Hygiene and Sanitation for students in the Faculties of Applied Science, Household Science and the Departments of Public Health Nursing and Social Service.

Laboratory and didactic courses of instruction are given to students in the Faculty of Applied Science who have elected the Sanitary and Highways option. In addition a series of lectures on Hygiene and Sanitation is delivered during the Winter Term to the Pupil Nurses of the Toronto Chapter of the Canadian Association of Nursing Education.

A course of instruction for graduates in Medicine leading to the Diploma in Public Health was instituted in 1904. Details of the curriculum leading to the Diploma in Public Health will be found on page 26.

INDUSTRIAL HYGIENE

A course of instruction in Industrial Hygiene for graduates in Medicine is available for those wishing to undertake work in this branch of Preventive Medicine.

Further details of the course may be obtained on application to the Head of the Department.

Facilities for Research in Preventive Medicine, Hygiene and Public Health (Immunity, Serology and Bacteriology) are provided in the Research Division of the Connaught Antitoxin Laboratories, for graduates in Medicine and other suitably qualified candidates desirous of prosecuting such studies.

Text-books:—Fitzgerald, Practice of Preventive Medicine; Rosenau, Preventive Medicine and Hygiene; Park, Public Health and Hygiene; Overton and Denno, The Health Officer; Prescott & Winslow, Elements of Water Bacteriology; American Public Health Association Standard Methods of Water Analysis.

Reference Books:—Kolmer, Infection, Immunity and Specific Therapy; Ledingham & Arkwright, The Carrier Problem of Infectious Diseases; Whipple, Microscopy of Drinking Water; Chandler, Animal Parasites and Human Disease; Mock, Industrial Medicine and Surgery.

MEDICAL JURISPRUDENCE

Professor: G. SILVERTHORN.

FOURTH YEAR

Lectures.—About eighteen lectures and class-room demonstrations will be given. These will be illustrated as required by lantern slides and by specimens from the Pathological Museum or from private collections.

The lecture course will embrace *inter alia* a discussion of:—Legal Criminal procedures and the relation of Medical men thereto. Medical evidence, documentary and oral, ordinary and expert. Personal identity of the living and of the dead. Thanatology: The reality of death; *post mortem* changes, autopsies and reports. Causes producing deaths by violence such as the various forms of asphyxia, heat, cold, electricity, etc. Wounds in their medico-legal relations. Blood stains and the examination of blood. Medico-legal aspects of the sexual functions, impotency, sterility and legitimacy. Pregnancy, abortion and infanticide. Rape and allied offences against chastity. Civil and criminal malpractice.

Text-books:—Glaister, Reese, Emerson, Draper, Buchanan's Text-book of Forensic Medicine and Toxicology.

Reference Text-books:—Taylor's Principles; Whitthaus and Becker; Peterson and Haines; Dixon Mann; Cattell's *Post Mortem Pathology*; Greene's Life Insurance; Atkinson's Law in Medical Practice; Cathell's The Physician Himself; Brother's Medical Jurisprudence; Wadsworth's Post Mortem Examinations.

RADIOLOGY

Associate: G. E. RICHARDS.

FOURTH YEAR

A series of ten lectures will be given dealing with the principles underlying the use of X-rays and radium as therapeutic agents, and the practical application of these in the treatment of disease.

FIFTH YEAR

Twenty lectures and demonstrations are given. In this course the use of X-ray methods in the diagnosis of diseases of the Gastro-intestinal tract, the chest, and the skeletal system will be fully covered, and will be illustrated by plates and lantern slides. It is also proposed to make demonstrations to small groups in the use of the fluoroscope.

Text-books:—Grover, Electro-Therapeutics; Clark, Radium, X-Ray and Electro-Therapy.

LECTURES IN DENTISTRY

The Faculty have arranged for a course of lectures to be delivered during the Session, on the application of Dentistry to Medicine. The instruction will be given by a man properly qualified for the purpose and will be delivered to the students of the final year. The course will be obligatory.

THE MEDICAL BUILDING

The Medical Building is situated between the University Library and the anatomical wing of the Biological Department.

It is three storeys in height in front, with an additional storey and sub-basement in the wings, which extend eastward. Two large lecture rooms are provided which flank the main building; the larger has accommodation for about three hundred and fifty students; the smaller for about two hundred students.

In the south wing, in what may be called the basement storey, are situated lavatories, recreation rooms and reading rooms for the students; in the same storey in the north wing is placed the Antitoxin laboratories.

The three main floors of the building are arranged upon what has been called the unit-system, a unit-room being thirty feet long by twenty-three feet deep, lighted on its long face by large windows.

These rooms may be united so as to form large laboratories or may be cut in two where it is necessary to have smaller rooms.

The south wing and the main portion of the building are occupied by the Departments of Physiology and Biochemistry whilst the north wing accommodates the department of Hygiene.

On the ground floor in the main portion are situated in front the Secretary's office, a large faculty room, a lavatory, and a library.

In the north wing in this floor are placed a chart and preparation room behind the lecture theatre, and on the third floor units are occupied by the Department of Pharmacology.

As will be seen from the above description, a series of laboratories and lecture theatres is provided on the University grounds where the most ample facilities are afforded for both the practical and didactic instruction of students.

As heretofore, lectures and demonstrations will be given in the east wing of the Biological building in Biology; in the Chemical Laboratories in Chemistry and in the Physics building in Physics. It is impossible to provide more complete and efficient accommodation for the teaching of scientific medicine than that which exists in the University of Toronto to-day.

THE LIBRARY

The University Library is contained in a building of its own, situated on the east side of the campus that lies to the south of the Main Building. All students who have paid a library fee to the Bursar of the University are entitled to the privileges of the Library. Besides Reading Rooms the building contains Departmental Studies, which may be used as study-rooms by honour students in the various branches in which the Professors

hold seminary courses, and private studies, intended for members of the Faculty or advanced students engaged in research work. The Library is opened at 8.45 every morning and remains open until 5.15 in the afternoon (6 p.m. during the second term). Books in ordinary use may not be taken out of the building during the daytime, but are lent for the night shortly before the hour of closing, to be returned the following morning before 10 o'clock. Books not in general demand may, on special application, be borrowed for a longer period. Failure to return a borrowed book at the proper time and other breaches of the regulations are punishable by fine or suspension from the privileges of the Library.

THE PATHOLOGICAL BUILDING

This building is situated on University Avenue and connected by a covered corridor with the Out-patient Department and so with the rest of the Toronto General Hospital. On the basement, or ground floor, are the Pathological Museum, lecture room and autopsy room as well as students' coat room and lavatories. On the first floor are rooms for the Hospital Pathologist and the routine Hospital pathology and class rooms for pathological histology and bacteriology. On the second floor the Professor of Pathology and Lecturer in Bacteriology have their private laboratories, and there are rooms for the Departmental Library and special classes in Pathology, in addition to a set of laboratories for pathological chemistry for the use of students in the Fourth and Fifth Years. On the third floor are the class rooms for systematic instruction in pathological chemistry and the laboratories for the staff in this Department, including balance, polarimeter, combustion and experimental rooms. Above this in the roof is the accommodation for animals.

Connected with the autopsy room is a cold storage plant with accommodation for twelve cadavers, and by means of a brine circulation, refrigerators in the staff laboratories on the first, second and third floors are kept cold. For many of the laboratories too there is a compressed air service.

The lecture room has seats for about 150 students and is connected with a room for preparing experimental demonstrations.

The museum is planned especially for the instruction of students: a small catalogue room and a preparation room are connected with it.

The class rooms are divided into small units and are exceptionally well lighted.

Lockers are provided for more than 300 students in the laboratories for pathological chemistry so that every student working in the Hospital may have his own place and apparatus.

The building is of fire-proof construction throughout.

THE ANATOMICAL BUILDING

The new Anatomical Building is situated to the east of the Medical Building to which it is parallel, and with the south wing of which it is connected.

It consists of four storeys and a basement except at the north end where there is a large lecture-room, two storeys in height and capable of accommodating 250 students. Beneath the lecture room are several well-lighted and commodious rooms which are to be equipped as a laboratory for experimental surgery. The remainder of the basement gives ample space for the preservation and storage of material.

The first floor is devoted to cloak-rooms for those occupying the lecture-room, a chart room and a photographic room, together with two demonstration or study rooms. Accommodation is also reserved for a Department of Anthropology which, it is hoped, may shortly be established.

On the second floor is a commodious Museum occupying the south end of the building, with a preparation room in connection. Two laboratories planned to accommodate classes in Histology, Embryology and Neurology are also provided upon this floor, together with a second lecture room with seating accommodation for approximately 100 students, and two demonstration rooms.

The third floor provides for a departmental library, private rooms for members of the staff and a dissecting room, while the fourth floor is devoted mainly to a series of dissecting rooms, well lighted by sky-lights. Certain of these rooms may be used as required for special classes and provision is also made for an osteology room and a demonstrators room. Ample locker and lavatory accommodations are provided.

ROYAL ONTARIO MUSEUM

Archaeology, Geology, Mineralogy, Palaeontology, Zoology.

Students of the University in all departments are recommended to avail themselves of the privileges of the Museum, which, although under separate control, is intimately connected with the work of the University.

The Museum is open on all week days from 10 a.m. to 5 p.m. Sundays 2 p.m. to 5 p.m. The admission is free to the public on Tuesday, Thursday, Saturday and Sunday. On other days an admission fee of fifteen cents is charged.

By a resolution of the Board of Trustees all regular students of the University may be admitted free on all days of the week by presenting their card of registration.

TORONTO GENERAL HOSPITAL

The Hospital has more than seven hundred beds, and during the last year admitted to its wards 10,938 patients.

The Out-door Department, which has been elaborately equipped with especial attention to the requirements of teaching as well as treatment, is designed to receive and care for several hundred patients each day, if necessity demands. Last year 59,933 out-patients were treated.

The Hospital is for the treatment of acute medical and surgical diseases, and the members of the staff are, in nearly every instance, drawn from the University Medical Faculty.

The Hospital Block contains ten acres, and the group of buildings includes almost everything necessary to enable a student to acquire a practical knowledge of the profession of Medicine.

On the south-west corner is situated the large Pathological Building, which is also an integral part of the Hospital. In it are found the Pathological, Clinical and Chemico-Pathological Laboratories, as well as the Autopsy Room, Museums, etc. The Pathological Building is regarded as one of the most complete in America. There were 208 autopsies during the year.

North of the Pathological Unit is found the Out-Patients' Department already referred to; then follows the Emergency Hospital, fully equipped with every modern device necessary for the immediate care and treatment of emergency patients. In this building arrangements have been made for the teaching and demonstration of practical methods in minor surgery.

The Medical Wing, the Administrative Building and Surgical Wing face College Street. These groups embody every modern requirement in hospital equipment, and special facilities for the student are provided—such as lecture room, cloak room, etc.

Twelve Operating Rooms are to be found in the different Surgical sections. South of the Surgical Wing is located the Obstetrical Hospital with eighty beds. The number of births in this Department last year was 1,337.

The X-Ray Department is one of the most complete on the continent, and averages more than one hundred patients a day sent in for examination. Complete courses are given to the students, so that they can qualify themselves in X-ray work. A well equipped Hydro-Therapeutic Department exists in connection with the X-Ray Department.

HOSPITAL FOR SICK CHILDREN

This large Hospital, with 250 beds, is entirely devoted to diseases in children, there having been 5,277 cases treated during the last year. In the Out-patient Department, 57,574 patients were attended. The old building has been remodelled and a large new wing has been built on the west side

of the present building. These alterations and additions include new operating theatres, out-patient department, pathological laboratories and wards for infectious cases.

ST. MICHAEL'S HOSPITAL

This institution is conducted as a General Hospital, where medical, surgical and obstetrical cases are admitted. The number of patients admitted last year was 4,842 while 41,576 cases were treated in the out-patient department. There were 452 births in the Obstetrical Department. The accommodation has been enlarged by the addition of a new wing, so that there are now 400 beds. An operating theatre has been provided constructed with all the necessary modern equipment for the practise of antiseptic surgery.

TORONTO WESTERN HOSPITAL

This is a modern institution affording excellent opportunities for clinical study. During the past year 3,697 patients were admitted. There is an out-door service where dental, tubercular, surgical, medical, gynaecological and special clinics are held; the number of patients treated in the Out-patient Department last year was 7,795.

Two large operating theatres are provided and the operations performed last year numbered 2,622. There is also an Obstetrical Department.

There are four public wards specially adapted for clinical teaching each containing thirty beds; two of these wards are devoted to medical and two to surgical cases.

RESIDENT ASSISTANTS IN THE HOSPITALS

A number of resident assistants are appointed annually from the graduates in medicine of Universities, and hold their positions for one or two years.

They will have full opportunities for acquiring experience in the general and special wards of the Hospitals, and during the session they will have charge under the physicians and surgeons in the wards.

CONNAUGHT ANTITOXIN LABORATORIES

Director: J. G. FITZGERALD.

Associate Director—R. D. DEFRIES.

Research Associate—A. H. CAULFEILD.

Research Chemist: P. J. MOLONEY.

Research Assistant: MISS L. HANNA.

The Connaught Antitoxin Laboratories, consisting of Research and Antitoxin Divisions, have a scope somewhat similar to that of the Lister Institute, London; The Pasteur Institute, Paris, and the Rockefeller Institute, New York, in the field of preventive Medicine, Bacteriology, Serology, and Immunity. Primarily established for research in Preventive Medicine, these Laboratories are also engaged in the production and distribution of Public Health Biological Products. The distribution of diphtheria antitoxin was commenced in May, 1914, and since that date the production of other sera and vaccines has been undertaken and the distribution extended throughout Canada and Newfoundland, the British West Indies, and to New Zealand.

The products distributed include: diphtheria antitoxin, tetanus antitoxin, anti-meningitis serum, small-pox vaccine, anti-pneumococcus serum, typhoid vaccine and rabies vaccine.

Since February 1st, 1916, the Provincial Board of Health of Ontario has distributed, free of charge in Ontario, all of the above named products. The Secretaries of the Local Boards of Health need only make application to the Chief Officer of Health, Parliament Buildings, Toronto, and supplies are at once forwarded. Physicians and Hospitals are supplied by the Secretary of their Local Boards of Health.

Similarly in September, 1917, the Bureau of Public Health, Saskatchewan, began free distribution of diphtheria antitoxin in that Province. (The antitoxin so supplied is prepared by these Laboratories.)

The Department of Militia and Defence was supplied with tetanus antitoxin and other biological products used by the Canadian Expeditionary Force Overseas and in training in Canada.

In October, 1917, a farm of over fifty acres and completely equipped laboratories and stables were presented to the University by Colonel Albert Gooderham. These Laboratories were given to provide facilities for research in Preventive Medicine, especially along the lines of serum therapy, and also to provide for the production of serums and vaccines. In connection with these Laboratories there has been established the Connaught Laboratories Research Fund, the interest on which is to be utilized for the support of research work in Preventive Medicine.

GENERAL INFORMATION FOR STUDENTS

PHYSICAL TRAINING

By order of the Board of Governors each male student proceeding to a degree must take Physical Training in the First and Second Years of his attendance. He must first undergo a medical examination by the Physical Director of the University to determine the character of his training.

DISCIPLINE

The Council of University College and the governing bodies of the federated universities and colleges, respectively, have disciplinary jurisdiction over and entire responsibility for the conduct of their students in respect of all matters arising or occurring in or upon their respective college buildings and grounds, including residences.

The councils of such of the faculties as have assigned for their separate use any building or buildings and grounds, including residences, have disciplinary jurisdiction over and entire responsibility for the conduct of all students in their respective faculties in respect of all matters arising or occurring in or upon such building or buildings and grounds.

In all such cases, and, save as aforesaid, as respects all students to whatsoever college or faculty they may belong, disciplinary jurisdiction is vested in the Caput, but the Caput may delegate its authority in any particular case or by any general regulation to the council or other governing body of the university or college or faculty to which the student belongs.

If there be any question as to the proper body to exercise jurisdiction in any matter of discipline which may arise, the same shall be determined by the Caput, whose decision shall be final.

Disciplinary jurisdiction includes the power to impose fines.

REGULATIONS RELATING TO STUDENTS IN ATTENDANCE

No student will be enrolled in any year, or be allowed to continue in attendance, whose presence is deemed by the Council of the Faculty to be prejudicial to the interests of the University.

Students proceeding regularly to the degree are required to attend the courses of instruction and the examinations in all subjects prescribed for students of their respective standing, and no student will be permitted to remain in the University who persistently neglects academic work.

Unless special permission is granted by the Council, a student who, at the close of two sessions in the University, has failed to secure standing in his year, will not be permitted registration in the Faculty of Medicine.

The Students Administrative Council has been entrusted by the Caput with supervision of the conduct of the students, and has power, subject to the approval of the Caput, to deal with Violations of the regulations governing conduct.

Any student who may be convicted of having taken part in a parade or procession through the city which has not been authorized by the police authorities after application by the Executive of the Students Administrative Council, will be severely disciplined.

All interference on the part of any student with the personal liberty of another by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence, is forbidden by the Caput.

A student who is under suspension, or who has been expelled from a College or from the University, will not be admitted to the University buildings or grounds.

The constitution of every University society or association of students in the Faculty of Medicine and all amendments to any such constitution must be submitted for approval to the Council of the Faculty. All programmes of such societies or associations must, before publication, receive the sanction of the Council of the Faculty through the President. Permission to invite any person not a member of the faculty of the University to preside at or address a meeting of any society or association must be similarly obtained.

The name of the University is not to be used in connection with a publication of any kind without the permission of the Caput.

THE UNIVERSITY OF TORONTO MEDICAL SOCIETY

This Society consists of the graduates and undergraduates enrolled in the Faculty of Medicine of the University of Toronto. It is under the patronage of the members of the Faculty of Medicine and its object is to deal with all matters pertaining to the general interest and welfare of the students, especially:—

(a) To encourage interest in general medical science and literature, and in pursuit of medical studies.

(b) To provide a supply of daily newspapers, periodicals, magazines and music for the reading rooms; also telephones for the convenience of students.

(c) To be a means of communication between the Student body and the Faculty or others, when such communication is desirable.

(d) To provide a series of entertainments for students at intervals during the Session.

(e) Each student will be required to pay the annual fee of two dollars to the Bursar, to be divided as follows:—

Medical Society Fee.....	\$1 00
Athletic Fee	.25
Class Fee... ..	.75

**FACULTY OF APPLIED SCIENCE
AND ENGINEERING**

FACULTY OF APPLIED SCIENCE AND ENGINEERING.

HISTORICAL SKETCH.

The Legislative Assembly during the Session of 1877 gave its sanction to the establishment of a School of Practical Science on the basis proposed in the memorandum of the Minister of Education confirmed by the Lieutenant-Governor in Council on the 3rd day of February, 1877.

By the scheme thus approved of, Government effected an arrangement with the Council of University College whereby the students of the School of Practical Science enjoyed full advantage of the instruction given by its professors and lecturers in all the departments of science which were embraced in the work of the School.

This arrangement was brought to an end in 1889 by the transfer of the department of science above referred to, from University College to the University of Toronto under the operation of the University Federation Act.

In order that the students of the School might continue to enjoy the advantage of the instruction of the above departments, the Senate of the University of Toronto passed a Statute in October, 1889, affiliating the School to the University, which Statute was confirmed by the Lieutenant-Governor on the 30th day of October, 1889.

By an Order-in-Council approved by the Lieutenant-Governor, on the 6th day of November, 1889, a Principal was appointed, and the management of the School was entrusted to a council composed of the Principal as chairman, and the Professors, Lecturers and Demonstrators appointed on the Teaching Faculty of the School.

By the terms of this order the management and discipline of the School was vested in the Council.

By a Statute of the Senate of the University of Toronto, passed on December 14th, 1900, the teaching staff and examiners of the School of Practical Science, together with the examiners for the degree of B.A.Sc., and professional degrees in Engineering, were constituted ex-officio the Faculty of Applied Science and Engineering of the University of Toronto.

By an Order-in-Council dated the 30th day of January, 1903, the Council of the School was made to consist of the Principal, the Professors and Lecturers, together with the Registrar.

By the University Act, 1906, the School of Practical Science was united to the University of Toronto as its Faculty of Applied Science and Engineering.

MATRICULATION.

A candidate for admission to the First Year in the Faculty of Applied Science and Engineering must produce satisfactory certificates of good character and of having completed the seventeenth year of his age on or before the first of October of the year in which he proposes to register.

He must also present certificates giving him credit in the following subjects of Pass and Honour Matriculation:

PASS MATRICULATION.

ENGLISH (Literature and Composition).

HISTORY (British and Ancient).

MATHEMATICS (Algebra and Geometry).

Any three of:

LATIN (Authors and Composition).

GREEK (Authors and Composition).

FRENCH (Authors and Composition).

SPANISH (Authors and Composition).

EXPERIMENTAL SCIENCE (Physics and Chemistry).

HONOUR MATRICULATION.

(At least 50%).

ENGLISH (Literature and Composition).

MATHEMATICS (Algebra, Geometry and Trigonometry).

One of:

LATIN (Authors and Composition).

GREEK (Authors and Composition).

FRENCH (Authors and Composition).

GERMAN (Authors and Composition).

SPANISH (Authors and Composition).

In selecting the options it is recommended that students take French, German and Experimental Science. In the Department of Architecture, French is required, in the Departments of Chemical Engineering and Mechanical Engineering it is desirable that students take German.

The regulations respecting Matriculation, together with a schedule of examinations which may be accepted as equivalent, may be found in the curriculum for matriculation on application to the Registrar of the University.

ADMISSION.

A candidate for admission must have completed the seventeenth year of his age on or before the first of October of the year in which he seeks to enter.

Applications for admission must be made on blank forms supplied by the Registrar, and should be forwarded as early as possible to the Registrar of the University, together with all Pass and Honour Matriculation or equivalent certificates.

Applications will be considered from (a) those who have completed the pass and honour matriculation requirements, including those who hold certificates recognized as equivalent—see matriculation curriculum—(b) those who have failed in not more than two papers of the pass matriculation examination. The latter must complete matriculation before being eligible to enter the second year.

Applications based upon other certificates than those mentioned will be considered as occasion may require. Such certificates must be accompanied by an official statement of the marks in the various subjects upon which the certificate was granted.

ADMISSION AD EUNDEM STATUM.

An undergraduate of another University may be admitted *ad eundem statum* on such conditions as the Senate on the recommendation of the Council of the Faculty may prescribe.

An applicant for admission *ad eundem statum* must submit with his petition (1) a calendar of his University giving a full statement of the courses of instruction; (2) an official certificate of character and academic standing.

ENQUIRIES.

Enquiries with reference to requirements of admission to the Faculty of Applied Science and Engineering are to be addressed to the Registrar of the University.

Communications relating to curricula, instruction, examinations and standing therein, in the Faculty of Applied Science and Engineering are to be addressed to the Secretary of the Faculty.

DEGREES

Degree of Bachelor of Applied Science (B.A.Sc.).

Degree of Bachelor of Architecture (B.Arch.).

There are six graduating Departments leading to the Degree of Bachelor of Applied Science (B.A.Sc.) and one graduating Department leading to the Degree of Bachelor of Architecture (B.Arch.).

1. Civil Engineering.
2. Mining Engineering.
3. Mechanical Engineering.
4. Architecture.
5. Discontinued.
6. Chemical Engineering.
7. Electrical Engineering.
8. Metallurgical Engineering.

The instruction in the Departments leading to the Degree of B.A.Sc. extends over a period of four years and is designed to give the students a thorough knowledge of the scientific principles in the several professions and also such training as will make him immediately useful when he commences professional work.

The instruction in the Department of Architecture leading to the Degree of B.Arch. extends over a period of four years and is designed to give the students a thorough knowledge of the aesthetic and scientific principles underlying the practice of the Architectural profession and also such other training as may make him immediately useful on commencing professional work.

Degree of Master of Applied Science (M.A.Sc.).

Graduates holding the Degree of B.A.Sc. of this University or those holding the degree of another University recognized as equivalent, may take post-graduate work proceeding to the Degree of Master of Applied Science (M.A.Sc.).

(For requirements, see page 87).

Degree of Master of Architecture (M.Arch.).

Graduates holding the Degree of B.Arch. or B.A.Sc. in Architecture of this University, or those holding the Degree of another University recognized as equivalent, may take post-graduate work proceeding to the Degree of Master of Architecture (M.Arch.).

(For requirements, see p. 88).

Professional Degrees.

Graduates in Applied Science and Engineering, and graduates of the School of Practical Science, may, after three years spent in professional work, present themselves for the degrees of Civil Engineer (C.E.), Mining Engineer (M.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), Chemical Engineer (Chem. E.), as the case may be, subject to the rules and regulations established by the University. (see page 88).

OPTIONS.

In the fourth year, optional courses are arranged in certain departments. Students are required to submit their selection to the Secretary in writing, not later than September 15th. The proposed selection must be approved by Council before adoption.

FEES.

All fees are payable at the Bursar's office between the hours 10 a.m. and 1 p.m. of each week day except Saturday.

The annual fees including tuition, library, laboratory supplies and one annual examination for each year shall be as follows:

If paid in full on or before November 5th \$150.00

By instalments.

First instalment, if paid on or before November 5th	\$75 00
Second instalment, if paid on or before February 5th	78.00

REPEATING THE YEAR.

If paid in full on or before November 5th	\$75.00
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The above fees are payable in advance. After November 5th a penalty of \$1.00 per month will be imposed until the whole amount is paid. In the case of payment by instalments the same rule as to penalty will apply.

Students must have paid the fees due in the first term before proceeding to the work of the second term.

GENERAL FEES.

Matriculation, or registration of Matriculation	\$5.00
Supplemental examination	10 00
Admission <i>ad eundem statum</i>	10 00
Hart House	11.00
Degree of B A.Sc. (payable not later than April 1st)	10.00
Degree of M A.Sc.	25.00
Physical Training	5.00

DUES AND DEPOSITS

(Payable to the Secretary of the Faculty at the time of registration.)

Engineering Society membership	\$2.00
Athletic Association membership	1.00
Annual deposit, Departments 1, 3, 4, 7	3.00
Departments 2, 6, 8	8 00

Charges for waste, neglect and breakage are to be met out of the deposit fee, the balance of which will be refunded to the student at the end of the session on application to the Secretary.

If the foregoing deposits do not cover the cost of breakage due to carelessness or neglect, the balance shall be paid by the student to the Secretary and in default of such payment the results of his examination will be withheld.

HART HOUSE AND THE STUDENTS ADMINISTRATIVE COUNCIL

The annual fee	\$11.00
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Every male student in attendance, proceeding to a Bachelor's Degree in the Faculty of Applied Science and Engineering, is required to pay to the Bursar at the time of the entry of his name with the Secretary the annual fee of eleven dollars for the maintenance of Hart House and the Students' Administrative Council.

WOMEN STUDENTS ADMINISTRATIVE COUNCIL FEE

Every woman student proceeding to a Bachelor's Degree in the Faculty of Applied Science and Engineering is required to pay to the Bursar at the time of the entry of her name with the Registrar the annual fee of three dollars for the maintenance of the Women Students' Administrative Council.

PHYSICAL TRAINING FEE

Every male student in attendance proceeding to a Bachelor's Degree in the Faculty of Applied Science and Engineering is required to pay to the Bursar the annual Physical Training fee of \$5.00 at the opening of each session in which Physical Training is compulsory for that student.

SCHOLARSHIPS

BOILER INSPECTION AND INSURANCE COMPANY SCHOLARSHIP

The Boiler Inspection and Insurance Company of Canada offers a Scholarship in the Department of Mechanical Engineering of the value of \$130 00 to the student who obtains highest Honour Standing in the regular examinations of the third year

The successful candidate will be expected to proceed to his fourth year during the session next following the date of the award.

The amount of the award will be credited by the Bursar to the fees of the fourth year of the successful candidate.

ONTARIO ASSOCIATION OF ARCHITECTS' ARCHITECTURAL SCHOLARSHIP

The Ontario Association of Architects offers a scholarship in the Department of Architecture of the value of \$100 to the student who has obtained the highest standard of general proficiency during the first year. This scholarship will be awarded annually in May, 1922 to 1926 inclusive.

TORONTO ARCHITECTURAL GUILD MEDAL

The Toronto Architectural Guild was the organization of local architects from which sprung the Ontario Association of Architects. When the new and wider association became firmly established, the Guild disbanded and handed over to a trustee board certain funds for the establishment of a Medal to be awarded in the Department of Architecture of the University of Toronto.

The Trustee Board, now that the fund has accumulated considerably, announces its intention of awarding this medal annually to a senior student showing outstanding ability in Architectural Design.

JUNIOR INSTRUCTORSHIPS

Provision is made for the seasonal appointment in various departments of graduates as Fellows or Demonstrators, whose duties shall consist of aiding in the work of instruction under the direction of the department concerned.

Applications for appointment should be made in writing to the Secretary of the Faculty not later than September 1st.

SCHOOL OF ENGINEERING RESEARCH

A School of Engineering Research, within the Faculty of Applied Science and Engineering was established in the Spring of 1917 at the suggestion of the late Dean Ellis.

The School is under the direct supervision of a Committee of Management composed of fifteen Members of the Faculty Council. To this Committee is entrusted the selection of researches to be undertaken under the auspices of the School, and the disposition of funds conducting them.

The School was organized chiefly for the training of graduates in methods of research, and for the carrying out of investigations. These latter may be problems relating to specific industries or raw materials and having a specific end in view, or general problems having to do with fundamental principles.

A number of research assistants are appointed annually in the various departments of the Faculty to carry on the work of research under direction of members of the staff. The facilities of the School are also open to graduates who desire to penetrate more deeply into particular phases of experimental work, or to undertake investigations either suggested by members of the staff or arising from their own work since graduation.

Address communications to the Secretary—Professor Maitland Boswell, Ph.D.

RESEARCH FELLOWSHIP

Regulations applying to students proceeding to the Degree of M.A.Sc. as a Research Fellow or as an Instructor on the teaching staff of this Faculty.

(1) No person in receipt of a salary exceeding \$600.00 for seven months' work under the School of Engineering Research shall be permitted to proceed to the degree of M.A.Sc.

(2) A person in receipt of a salary not exceeding \$600.00 for seven months under the School of Engineering Research and proceeding to the degree of M.A.Sc. shall be known as a Research Fellow.

(3) A person in receipt of a salary not exceeding \$800.00 for seven months' work as Instructor on the teaching staff may be allowed half his time for research work, in order that he may proceed to the degree of M.A.Sc., which shall not be granted in less than two years to such a candidate.

REGULATIONS RESPECTING EXAMINATIONS

REGULAR EXAMINATIONS

Promotions from one year to another are made on the results of the annual examinations. Students proceeding to a degree must pass all the examinations in the subjects of his or her course and at the periods arranged from time to time by the Council.

Candidates who fail in passing the annual examinations will be required to take again the whole course of instruction, both theoretical and practical, of the year in which they fail before presenting themselves a second time for examination. (This repetition includes vacation work.)

A student who in either term of the session fails to perform the work of his course in a manner satisfactory to the professors in charge, will not be allowed to present himself at the final examinations of the year.

In the second, third and fourth years annual examinations will be held at the beginning of the second term on all subjects completed during the first term.

No student will be allowed to write at the annual examinations who has not paid all fees and dues for which he is liable.

The pass marks required on written examinations is 40% and on practical examinations 60%.

Honours will be granted in each department to the students who obtain at least 50 per cent. in each subject, and 75 per cent. of the total number of marks allotted to the department at the annual examinations.

Honour Graduate standing will be granted to those who obtain honours in the final and in one previous year.

SUPPLEMENTAL EXAMINATIONS

A candidate who fails in one or two subjects at the Annual Examinations will be required to take supplemental examinations in such subjects.

The supplemental written examinations will begin on the 23rd of September, 1922. Candidates are required to send to the Secretary of the Faculty not later than the 1st of September, notice in writing of their intention to take such examinations, and to remit at the same time to the Bursar the fee of \$10 00. A penalty of \$1 00 will be imposed upon all candidates who fail to give notice within the time stated.

In the case where a candidate fails to pass a supplemental examination it will count as one of the two supplemental examinations which may be allowed him after the next annual examination.

VACATION WORK

Vacation work must be handed in on or before the first day of the session.

Vacation notes must be on construction only, and contain not less than twenty, nor more than thirty pages of sketches. These sketches must be freehand pencil drawings with figured dimensions.

Notes must be made in standard note books approved of by the Faculty. Notes which have been taken during the session in connection with the work in drawing will not count as vacation work.

The minimum percentage of marks required for practical work must be made in the case of vacation notes.

VACATION LETTERS

Department of Mining Engineering

THIRD YEAR STUDENTS:—Four letters to be written and mailed to the Professor of Mining Engineering, one each month, June, July, August and September; at least one letter must deal with a labour episode.

FOURTH YEAR STUDENTS.—The student may select either one of the following alternatives.—

- A. Four letters to be written and mailed, one each month, June, July, August and September; at least one letter to be on a labour episode or
- B. One letter describing a labour episode to be written and mailed to the Professor of Mining Engineering not later than June 30th, and an article of suitable character and length for submitting to the Engineering Institute of Canada or the Canadian Mining Institute as a student's paper, to be written and mailed to the Professor of Mining Engineering not later than September 30th.

FIELD EXPERIENCE

Department of Mining Engineering

The following are the regulations governing field experience certificates.

Candidates for the degree in the Department of Mining Engineering will be required to present satisfactory evidence of having had at least six months' practical experience in work connected with mining, metallurgy or geology, for which they must have received regular wages.

The time may be spent on geological survey, in ore dressing, smelter or lixiviation works, in an assay office in the vicinity of mining or metallurgical works, on any work in or about a mine other than as an office man or clerk, or in prospecting. Not more than three months on geological surveys will be accepted, and prospecting will only count one-half (*i.e.*, four months' prospecting will be counted as two months) and must not be submitted for more than three of the six months.

In addition to the above, two months must be spent as office man or clerk.

Certificates must be made out, signed and countersigned and sent to the Secretary of the Faculty of Applied Science and Engineering, who will retain them.

SHOP WORK

Departments of Mechanical and Electrical Engineering

Students in Mechanical and in Electrical Engineering are not granted their degree until certificates have been submitted to the Council, and accepted as satisfactory, showing not less than eight months of mechanical experience in production under commercial conditions. Preferably the work undertaken should be in one of the manufacturing industries or trades with which the course is related.

It is not desirable that a student in these courses should enter the engineering industries without having acquired some experience in mechanical production and it is best to obtain this experience under commercial conditions, so that he can appreciate shop conditions and limitations.

REGULATIONS RESPECTING TERM WORK

Students working in any laboratory must be governed by the regulations relating thereto as made known from time to time.

No laboratory reports or drawings may be removed from the laboratories without permission. The Council reserves the right to dispose of them as may be thought proper.

FIELD WORK

Field Work in Surveying of the First and Second Years will be taken on the University grounds, during the session.

The Field Work of the Third Year, for the session 1922-1923, will be taken previous to the session, during the months of August and September, 1922, at the University Survey Camp, situated on the shore of Gull Lake, and about five miles from the Village of Mindeß (Lot No. 9 in 13th Concession of the Township of Lutterworth). The camp may be reached by taking the train leaving Lindsay for Haliburton, and getting off at Gelert.

Students of the Third Year, Department 1, are expected to reach Gelert in the afternoon of August 19th, and those of Department 2, on September 2nd, when conveyances will meet them to take them to the camp. Personal effects must be limited to sixty pounds in weight, which must include two pairs of blankets, or their equivalent; beds and mattresses only will be provided.

No field notes will be counted which have not been taken in the field and during the hours allotted to such work.

Students taking practical astronomy are required to take observations in the field for time, latitude, and azimuth.

DRAFTING ROOMS

Drawings and briefs for same, that are required to be finished the first term of the session will not be counted unless finished in that term.

The minimum number of drawings in first and second years shall be twenty-five, and the maximum number thirty-five.

No drawings or briefs for same will be counted which have not been made in the drafting rooms, and during the hours allotted to such work.

THESES

In the Fourth Year each student is required to prepare a thesis on a subject approved by the Council. The title of the thesis must be sent to the Secretary of the Faculty for approval on or before November 1st, and the completed thesis must be handed in not later than the first day of the second term and shall become the property of the University. The rules governing size, form, etc., may be obtained on application to the Secretary.

EXEMPTIONS

Applications for exemption from any of the regulations must be made to the Council in writing and the particulars of the case fully stated.

GENERAL INFORMATION FOR STUDENTS

The Council of University College and the governing bodies of the federated universities and colleges, respectively, have disciplinary jurisdiction over and entire responsibility for the conduct of their students in respect of all matters arising or occurring in or upon their respective college buildings and grounds, including residences

The councils of such of the faculties as have assigned for their separate use any building or buildings and grounds, including residences, have disciplinary jurisdiction over and entire responsibility for the conduct of all students in their respective faculties in respect of all matters arising or occurring in or upon such building, or buildings and grounds.

In all such cases, and, save as aforesaid, as respects all students to whatsoever college or faculty they may belong, disciplinary jurisdiction is vested in the Caput, but the Caput may delegate its authority in any particular case or by any general regulation to the council or other governing body of the university or college or faculty to which the student belongs.

The Caput has also power and authority to determine by general regulations, or otherwise, to what college, faculty or other body the control of university associations belongs.

If there be any questions as to the proper body to exercise jurisdiction in any matter of discipline which may arise, the same shall be determined by the Caput, whose decision shall be final.

Disciplinary jurisdiction includes the power to impose fines.

Information as to the text-books, instruments and materials to be purchased by the students will be given on registration at the beginning of the session.

REGULATIONS RESPECTING STUDENTS IN ATTENDANCE

No student will be enrolled in any year, or be allowed to continue in attendance, whose presence is deemed by the Council to be prejudicial to the interests of the University.

No student will be allowed to repeat the work of any year more than once.

Students proceeding regularly to the degree are required to attend the courses of instruction and the examinations in all subjects prescribed for students of their respective standing, and no student will be permitted to remain in the University who persistently neglects academic work.

Unless special permission is granted by the Council, a student who, at the close of two sessions in the University, has failed to secure standing in his year, will not be permitted registration in the Faculty of Applied Science and Engineering.

All interference on the part of any student with the personal liberty of another by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence, is forbidden by the Caput.

A student who is under suspension, or who has been expelled from a

College or from the University, will not be admitted to the University buildings or grounds.

The constitution of every University society or association of students in the Faculty of Applied Science and Engineering and all amendments to any such constitution must be submitted for approval to the Council of the Faculty. All programmes of such societies or associations must, before publication, receive the sanction of the Council of the Faculty through the Dean. Permission to invite any person not a member of the Staff of the University to preside at or address a meeting of any society or association must be similarly obtained.

The name of the University is not to be used in connection with a publication of any kind without the permission of the Caput.

HART HOUSE

Hart House, the gift of the Massey Foundation, is the Undergraduates' Union of the University of Toronto.

Hart House contains completely equipped club rooms, including common rooms, reading room, music room, lecture room, sketch room, photographic dark rooms, the Great Hall, used as a dining hall, a small chapel, the offices and class rooms of the Students Christian Association, gymnasia and swimming pool, rifle range, billiard room and the Hart House theatre.

All male students proceeding to a degree in the University are members of Hart House. An annual fee imposed by the University, covers the fee of the Students' Administrative Council, all club fees in connection with Hart House, and membership in the Athletic Association, including the medical examination.

Other male students in the University, or students in the affiliated or federated institutions receiving instruction in the University, may become members of Hart House on payment of the required fee.

Graduates are entitled to the full privileges of Hart House on payment of an annual fee of \$10.00. Out-of-town graduates may become members on payment of an annual fee of \$2.50.

A group of rooms is set apart for the use of the Faculty Union. There is also a common room for the use of graduates. Five guest rooms are available for the use of guests, for periods of a week or less, at a reasonable rental.

The Theatre is under the management of the Players' Club of the University of Toronto, and is available for productions by any of the Dramatic Clubs within the University.

For further information, apply to the Warden of Hart House.

STUDENTS' ADMINISTRATIVE COUNCIL

The Students' Administrative Council has been entrusted by the Caput with supervision of the conduct of the students, and has power subject to the approval of the Caput to deal with violations of the regulations governing conduct.

Any student who may be convicted of having taken part in a parade or procession through the city which has not been authorized by the police authorities after application by the Executive of the Students' Administrative Council, will be severely disciplined.

WOMEN STUDENTS' ADMINISTRATIVE COUNCIL

The Women Students' Administrative Council is the representative organ of the women students of the University of Toronto, and aims to co-ordinate all intercollegiate activities. It consists of representatives from all colleges and faculties. A fee of \$3 is paid for the council by each woman student proceeding to the Bachelor's degree. The council assumes joint financial responsibility with the men's council for the publication of *Varsity*, *Toronto-nensis*, and the *Directory*.

UNIVERSITY OF TORONTO ATHLETIC ASSOCIATION

This organization has full control of the Athletic activities of the University undergraduates.

The Athletic Directorate is the executive of this association and is composed of two representatives from the teaching staff, five from the undergraduates and two from the graduates.

The regulations of the A.A.U. of C. require that every student who wishes to participate in athletic contests with outside clubs during the academic session must obtain a permit from the University Athletic Association.

1. DEPARTMENT OF CIVIL ENGINEERING

The courses of study in Civil Engineering are designed to give the student a sound training in the fundamental scientific principles on which the practice of the profession is based. The instruction is given by means of lectures and practical work in the field, the drafting room and the laboratory. In this way the student is led to apply the principles developed in the class room.

FIRST YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Calculus	236	2	0	2	0
Analytical Geometry....	238	1	0	2	0
Descriptive Geometry . . .	160	1	0	1	0
Surveying	270, 271	1	5	1	0
Statics	1	2	0	2	0
Dynamics	2	2	0	2	0
Elementary Chemistry . . .	85	2	0	1	0
Electricity.	135	2	0	2	0
Optics	185	1	2	1	2
Technical English...	122	1	0	1	0
Business	121	0	0	1	0
Engineering Drawing	166	0	11	0	18
Physical Training	...	0	2	0	2

SECOND YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Vacation Work.....	286	...	..	..	..
Calculus.....	237	1	0	1	0
Spherical Trigonometry.....	239	1	0	0	0
Elementary Astronomy.....	71	1	0	1	0
Descriptive Geometry.....	162	1	0	1	0
Surveying.....	272, 273	1	9	1	0
Dynamics.....	3	1	0	1	0

SECOND YEAR—Cont.

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Mechanics of Materials.....	4	2	0	2	0
Engineering Chemistry.....	93	1	0	1	0
Organic Chemistry.....	95	0	0	1	0
Metallurgy.....	241	0	0	1	0
Geology.....	195	0	0	2	0
Mineralogy.....	257,259	2	1	0	2
Hydrostatics.....	186	0	0	1	1
Heat.....	187	1	1½	0	0
Photography.....	188	1	1½	0	1½
Economics & Finance.....	123	1	0	1	0
Chemical Laboratory.....	89	0	3	0	3
Engineering Drawing.....	169	0	4½	0	13½
Physical Training.....	..	0	2	...	2

THIRD YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Survey Camp.....	275	...	..	..	...
Engineering Chemistry....	102	1	0	1	0
Theory of Structures.....	6	2	0	2	0
Thermodynamics.....	223	1	0	1	2
Hydraulics.....	205, 206	2	0	2	3
Least Squares.....	240	0	0	1	0
Practical Astronomy and Geodesy.....	72, 73	2	2	2	0
Descriptive Geometry.....	164	1	0	0	0
Surveying and Levelling...	274	1	0	1	0
Electricity.....	143	1	3	1	0
Stress Graphics.....	10	1	0	1	0
Cements and Concrete. ..	11	0	0	1	0
Engineering Geology....	197	1	0	1	0
Commercial Law.....	124	1	0	1	0
Public Speaking.....	133	1	0	0	0
Mechanics of Materials Laboratory.....	9	0	3	0	0
Engineering Drawing.....	173	0	12	0	15

FOURTH YEAR

(a) Astronomy Option

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Thesis.....	285	0	3	0	0
Engineering Economics..	125	0	0	1	0
Engineering Law.....	126	1	0	0	0
Contracts and Specifications..	127	0	0	1	0
Management.....	128	1	0	0	0
Astronomy ..	74, 76	2	23	2	0
Geodesy.....	75, 76	2	0	2	23
Photographic Surveying.	191	1	2	0	0

FOURTH YEAR

(b) Municipal Engineering Option

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Thesis.....	285	0	3	0	0
Engineering Economics..	125	0	0	1	0
Engineering Law.....	126	1	0	0	0
Contracts and Specifications.....	127	0	0	1	0
Management.....	128	1	0	0	0
Reinforced Concrete.....	15	1	0	1	0
Foundations.....	14	1	0	1	0
Hydraulics.....	211	1	3	0	0
Structural Design.....	17	1	0	0	5
Miscellaneous Structures	19	0	0	1	0
Hygiene and Bacteriology.....	82	1	0	1	6
Biology.....	81	0	5	0	0
Sanitary Chemistry.....	117	1	6	0	4
Sanitary Engineering....	280	1	3	1	6
Highway Engineering... ..	281	1	3	1	3
Municipal Seminar (including Town Planning).....	282	0	3	0	3
Municipal Administration (including Civics)	132	1	0	1	0

FOURTH YEAR—(c) Structural Engineering Option

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Thesis.....	285	0	3	0	0
Engineering Economics..	125	0	0	1	0
Engineering Law.....	126	1	0	0	0
Contracts and Specifications.....	127	0	0	1	0
Management.....	128	1	0	0	0
Reinforced Concrete....	15	1	0	1	0
Foundations.....	14	1	0	1	0
Theory of Structures....	12	2	0	2	0
Physical Metallurgy....	252	1	0	1	0
Structural Design	17	1	0	1	0
Mill Building Design....	18	1	0	0	0
Miscellaneous Structures	19	0	0	1	0
Mechanics of Materials Laboratory....	13	0	3	0	6
Structural Design Drawing.....	178	0	22	0	22

FOURTH YEAR—(d) Hydraulic Engineering Option

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Thesis.....	285	0	3	0	0
Engineering Economics..	125	0	0	1	0
Engineering Law.....	126	1	0	0	0
Contracts and Specifications.....	127	0	0	1	0
Management.....	128	1	0	0	0
Reinforced Concrete....	15	1	0	1	0
Foundations.....	14	1	0	1	0
Theory of Structures....	12	2	0	2	0
Hydraulics.....	207, 208, 209	3	10	3	10
Physical Metallurgy....	252	1	0	1	0
Structural Design.....	17	1	0	1	0
Mill Building Design....	18	1	0	0	0
Miscellaneous Structures	19	0	0	1	0
Electrical Laboratory...	144	0	0	0	3
Mechanics of Materials Laboratory.....	13	0	6	0	3
Structural Design Drawing.....	179	0	4	0	8

FOURTH YEAR

(e). Railway Engineering Option

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Thesis...	285	0	3	0	0
Engineering Economics..	125	0	0	1	0
Engineering Law.....	126	1	0	0	0
Contracts and Specifications.....	127	0	0	1	0
Management.....	128	1	0	0	0
Reinforced Concrete ...	15	1	0	1	0
Foundations	14	1	0	1	0
Theory of Structures..	17	2	0	2	0
Hydraulics.. . . .	211	1	3	0	0
Special Geology.....	204	0	0	1	1½
Physical Metallurgy... .	252	1	0	1	0
Electrical Laboratory..	144	0	0	0	3
Motive Power.. . . .	225	1	0	1	0
Railway and Miscellaneous Structures....	20, 19	1	0	1	0
Railway Economics ...	131	2	0	2	0
Railway Location and Design.....	276	1	8	1	6
Mechanics of Materials Laboratory.....	13	0	3	0	6
Structural Design Drawing.....	179	0	6	0	6

2. DEPARTMENT OF MINING ENGINEERING

This course, originating in 1878 as Assaying and Mining Geology, is designed to give the student a sound training in the fundamental scientific knowledge on which the practice of the various branches of Mining Engineering is based. The field of the Mining Engineer is so wide and his activities so varied that this course has become a very broad one. It is the most inclusive of all the Engineering Courses. In general it is designed in the earlier years to give the student, in addition to the fundamental principles, a good training in the subjects of Engineering essential to all branches, such as drawing, surveying, etc., and then in later years to devote more time to those studies peculiar to Mining Engineering.

Candidates for the degree of B.A.Sc. in this department will be required to present satisfactory evidence of having had at least eight months' practical experience in work connected with Mining, Metallurgy or Geology. Candidates for the degree of M.A.Sc. in this department (see page 87) have splendid opportunities for research work in the Assaying and Ore-dressing laboratories. Investigation and research are becoming more and more an integral part of all Mining operations and this fifth year is a special training in this direction. In addition to some special research work, all candidates for this advanced degree are required to devote some time to the study of the following subjects: Cost Keeping in connection with efficiency and motion study, Patents and Technical Writing.

FIRST YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Calculus.....	236	2	0	2	0
Analytical Geometry.....	238	1	0	2	0
Descriptive Geometry.....	160	1	0	1	0
Surveying.....	270, 271	1	5	1	0
Statics.....	1	2	0	2	0
Dynamics.....	2	2	0	2	0
Elementary Chemistry...	85	2	0	1	0
Electricity.....	135	2	0	2	0
Mineralogy.....	255, 258	2	1	0	3
Technical English.....	122	1	0	1	0
Business.....	121	0	0	1	0
Mining Laboratory.....	50	0	0	0	3
Engineering Drawing.....	166	0	11	0	14
Physical Training.....		0	2	0	2

SECOND YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Vacation Notes.....	286				
Descriptive Geometry.....	162	1	0	1	0
Surveying... ..	272, 273	1	6	1	0
Dynamics	3	1	0	1	0
Mechanics of Materials...	4	2	0	2	0
Inorganic Chemistry.....	87	1	0	1	0
Organic Chemistry.....	95	0	0	1	0
Metallurgy.....	241	0	0	1	0
Geology.....	195	0	0	2	0
Mineralogy.. . . .	260, 261	1	2	1	2
Mining.....	51	1	3	0	0
Theory of Measurements..	63	1	0	0	0
Ore Dressing	57	1	0	0	0
Steam Engines.....	216	0	0	1	0
Theory of Mechanism. . .	230	2	0	2	0
Economics and Finance...	123	1	0	1	0
Chemical Laboratory . . .	89, 90	0	6	0	6
Engineering Drawing.....	169	0	3	0	12
Physical Training.....		0	2	0	2

THIRD YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Vacation Letters.....	66				
Survey Camp.....	275				
Engineering Chemistry....	102	1	0	1	0
Theory of Structures.....	7	2	0	0	0
Hydraulics.....	205	2	0	2	0
Analytical Chemistry.....	88	1	0	1	0
Electricity.....	143	1	0	1	0
Assaying.....	45, 46	1	3	0	3
Economic Geology.....	198, 203	1	0	2	2
Ore Deposits.....	202	1	0	1	0
Ore Dressing.....	58, 59	1	3	1	3
Physics of Ore Dressing...	62	1	0	1	0
Mining.....	54	0	0	2	0
Petrography.....	262	1	0	1	0
Metallurgy.....	243	1	0	1	0

THIRD YEAR—Cont.

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Physical Metallurgy.....	244	0	0	2	0
Commercial Law.....	124	1	0	1	0
Mineralogy Laboratory ...	263	0	2	0	2
Introductory Research. . .	64	0	0	0	3
Chemical Laboratory....	99	0	3	0	6
Mechanics of Materials Laboratory.....	9	0	0	0	3
Engineering Drawing.....	174	0	9	0	0

FOURTH YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Vacation Letters.....	66				
Thesis.....	65	0	7	0	10
Mine Cost Keeping and Management.	56	1	0	1	0
Thermodynamics	223	1	0	1	0
Assaying.....	47, 48	0	0	1	3
Electrochemistry.....	107, 108	2	3	0	0
Geology-Glacial and Archean.....	199	2	1	2	0
Geology-Mining.....	200	1	0	1	0
Metallurgy.	247	1	0	1	6
Mining.....	55	1	0	1	0
Ore Dressing.....	60, 61	1	6	1	0
Business.....		1	0	1	0
Metallography.....	251	0	0	0	3
Power {	Electrical Lab'y..	144	0	3	0
	Hydraulics Lab'y..	210	0	3	0
	Thermodynamics Lab'y.....	224	0	0	3

3. DEPARTMENT OF MECHANICAL ENGINEERING

The course in this Department is designed to meet the needs of those students who are intending to take up the work connected with Mechanical Engineering, such as the design of gas engines, steam engines, steam boilers, steam turbines, air compressors, etc.; the design and installation of the machinery connected with power plants and central stations, steam piping and other similar problems. The work is also so arranged that the student becomes somewhat familiar with the design of travelling cranes and mill buildings and similar problems connected with structural steel work.

Since the work of the mechanical engineer and of the electrical engineer is closely allied, the courses in these two departments in the first two years are practically identical and cover the subjects mentioned below.

In the third year the work becomes more specialized, the mechanical engineers paying more attention to heat engines of various types, and to mill building design and other work of similar nature. The study of electricity is continued and the student gets considerable practice in the mechanical and electrical laboratories.

In the fourth year the student devotes himself still more closely to his chosen work, placing the greater stress on thermodynamics and the theory and testing of heat engines, and problems in machine design and also in the design of hydraulic power plants with their accessories and pumps. Much time is spent in the mechanical laboratories testing gas and steam engines, water turbines and other hydraulic machinery.

Before receiving the degree in this department candidates are required to present satisfactory evidence of having had at least eight months' practical experience in one of the principal trades connected with Mechanical Engineering, the object being that graduates may have some practical knowledge of the duties of the workman in this branch of engineering, as distinguished from those of the purely technical man. Certificate forms will be furnished on application. These forms contain full details in regard to the work required and should be obtained by the candidate before he enters his employment.

FIRST YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Calculus.....	236	2	0	2	0
Analytical Geometry ...	238	1	0	2	0
Descriptive Geometry...	160	1	0	1	0
Surveying.....	270, 271	1	5	1	0
Statics.....	1	2	0	2	0
Dynamics.....	2	2	0	2	0
Elementary Chemistry..	85	2	0	1	0
Electricity	135	2	0	2	0
Illuminating Engineering	185	1	2	1	2
Technical English	122	1	0	1	0
Business	121	0	0	1	0
Engineering Drawing...	166	0	11	0	18
Physical Training.....		0	2	0	2

SECOND YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Vacation Work....	286				
Calculus.....	237	1	0	1	0
Descriptive Geometry...	162	1	0	1	0
Dynamics.....	3	1	0	1	0
Mechanics of Materials..	4	2	0	2	0
Engineering Chemistry..	93	1	0	1	0
Organic Chemistry	95	0	0	1	0
Metallurgy.....	241	0	0	1	0
Hydrostatics.....	186	0	0	1	1½
Elementary Machine Design.....	232	1	0	1	0
Electricity	136, 137	2	3	2	3
Steam Engines.....	216	1	0	1	0
Theory of Mechanism...	230	2	1½	2	1½
Economics and Finance..	123	1	0	1	0
Chemical Laboratory....	89	0	3	0	3
Engineering Drawing....	170	0	13	0	11
Physical Training.....		0	2	0	2

THIRD YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Engineering Chemistry	102	1	0	1	0
Theory of Structures..	7	2	0	0	0
Thermodynamics. . .	217, 219	2	3	2	3
Hydraulics.	205, 206	2	0	2	3
Heat Engines.	218	2	0	2	0
Mechanics of Machinery.	231	1	0	1	0
Machine Design. . . .	233	2	4	2	10
Magnetism Electricity..	138, 140	2	3	0	0
Alternating Current . .	139	1	0	1	3
Physical Metallurgy....	244	0	0	2	0
Stress Graphics.....	10	1	0	0	0
Commercial Law.....	124	1	0	1	0
Mechanics of Materials					
Laboratory	9	0	0	0	3
Engineering Drawing...	177	0	9	0	0

FOURTH YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Thesis.....	285				
Engineering Economics..	125	0	0	1	0
Shop Managements and Costs.	130	1	0	1	0
Structural Design.....	17	1	3	0	3
Mill Building Design....	18	1	0	0	0
Machine Design.....	234	1	5	1	5
Electrical Laboratory...	144	0	0	0	3
AND TWO OF:					
Thermodynamics. . . .	220, 221, 222	3	9½	3	9
Hydraulics.....	207, 208, 209	3	9½	3	9
Mechanics of Materials	12, 13, 15,	4	6	4	3
including Structural	17, 181 }				
Design Drawing....		0	4	0	6

4. DEPARTMENT OF ARCHITECTURE

The instruction in this department is arranged to lay a broad foundation for the subsequent professional life of its graduates, and incidentally to prepare its students to be immediately useful in an architect's office. The curriculum has been arranged to meet the aesthetic and scientific needs of the profession, and includes History and Principles of Architecture, Freehand Drawing in pencil, ink and colour, Modelling, Architectural Design, Analysis and criticism of Buildings, Mathematics, Statics, Strength and Elasticity of Materials, Theory of Construction and Heating and Ventilation.

The equipment of the department includes a working library, current periodicals, photographs, lantern slides, and a large collection of Architectural models and casts.

FIRST YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Calculus.....	236	2	0	2	0
Analytical Geometry....	238	1	0	2	0
Descriptive Geometry...	161	1	0	1	0
Statics.....	1	2	0	2	0
Building Measurements..	37	1	7	1	0
Elements of Architecture	28	1	0	1	0
History of Architecture .	25	1	3	1	0
Technical English.....	122	1	0	1	0
French.....	266	2	0	2	0
Modelling.....	36	0	2	0	2
Freehand Drawing.....	35	0	3	0	2
Architectural Drawing...	167	0	9	0	18
Physical Training.....		0	2	0	2

SECOND YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Vacation Work	285				
Descriptive Geometry...	163	1	0	1	0
Mechanics of Materials..	5	2	0	2	0
Architectural Design...	31	1	0	1	0
History of Architecture..	26	1	0	1	0
History of Ornament... .	29	1	0	1	0
Illumination..... .	189	1	1½	1	1½
Economics and Finance..	123	1	0	1	0
English..... .		2	0	2	0
French.. ..	266	1	0	1	0
Modelling..... .	36a	0	2	0	2
Freehand Drawing.....	35a	0	3	0	3
Architectural Design }	171	0	17	0	17
Architectural Drawing }					
Physical Training		0	2	0	2

THIRD YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Structural Design.....	16	2	0	2	0
Acoustics.....	190	1	1½	1	0
Building Materials....	38	2	0	2	0
History of Architecture..	27	1	0	1	0
History of Fine Art....	30	1	0	1	0
Architectural Design...	32	1	0	1	0
Commercial Law.....	124	1	0	1	0
French.....	266	1	0	1	0
Mechanics of Materials..	9	0	0	0	2
Modelling.....	36b	0	2	0	2
Water Colour Painting..	35b	0	3	0	3
Architectural Design }	175	0	18	0	18
Architectural Drawing }					

FOURTH YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Thesis.....	286	0	3	0	3
Contracts and Specifications.....	127	0	0	1	0
Reinforced Concrete....	15	1	0	0	2
Structural Design.....	16	1	0	1	0
Heating and Ventilating.	40	1	0	1	0
Sanitary Science.....	39	1	0	1	0
Drawing from Life.....	35c	0	3	0	3
Modelling from Life....	36c	0	2	0	2
AND ONE OF:					
Architectural Design..	33	2	24	2	22
Architectural Engineer- ing	34, 18	4	22	3	20

6. DEPARTMENT OF CHEMICAL ENGINEERING

In many industries there is a demand for a man who combines the technical knowledge of the mechanical engineer with a knowledge of chemistry. It is to fill this want that the course in Chemical Engineering is designed.

FIRST YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect.	Lab'y
Calculus	236	0	0	2	0
Analytical Geometry.. .	238	1	0	2	0
Descriptive Geometry.. .	160	1	0	1	0
Statics.. . . .	1	2	0	2	0
Dynamics... . .	2	2	0	2	0
Elementary Chemistry .	85	2	0	1	0
Electricity..... .	135	2	0	2	0
Optics	185	1	2	1	2
Technical English.....	122	1	0	1	0
German..... .	267	1	0	1	0
Business..... .	121	0	0	1	0
Mineralogy Laboratory...	256	0	0	0	3
Biological Laboratory.. .	80	0	3	0	3
Chemical Laboratory.....	86	0	10	0	10
Engineering Drawing.....	168	0	4	0	4
Physical Training.....		0	2	0	2

SECOND YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Vacation Work.....	286				
Calculus.. .. .	237	1	0	1	0
Mechanics of Materials.. .	4	2	0	2	0
Engineering Chemistry...	93	1	0	1	0
Organic Chemistry.. . . .	96	2	0	2	0
Metallurgy.	241	0	0	1	0
Hydrostatics	186	0	0	1	1
Elementary Machine Design.....	232	1	0	1	0
Electricity	136, 137	2	3	2	3
Industrial Chemistry....	94	1	0	1	0
Physical Chemistry....	98	2	0	2	0
Inorganic Chemistry... .	87	1	0	0	0
German.. . . .	267	1	0	1	0
Economics and Finance .	123	1	0	1	0
Chemical Laboratory...	92	0	10	0	12
Engineering Drawing. ...	172	0	7	0	3
Physical Training.		0	2	0	2

THIRD YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Engineering Chemistry....	102	1	0	1	0
Theory of Structures.....	7	2	0	0	0
Thermodynamics.....	217	2	2	2	0
Hydraulics	205	2	0	2	1
Metallurgy	243	1	0	1	0
Ferro-Metallurgy.... .	244	0	0	2	0
Assaying.	49	0	0	0	3
Analytical Chemistry....	88	1	0	1	0
Electrochemistry	107, 108	2	3	0	0
Industrial Chemistry	103	1	0	1	0
Organic Chemistry.....	106	2	0	2	0
Chemical Plant	104	1	0	1	0
German.....	267	1	0	1	0
Commercial Law.....	124	1	0	1	0
Power.....	144, 224, 206	0	3	0	3
Chemical Laboratory.....	100	0	5	0	14
Engineering Drawing.....	177	0	6	0	0

FOURTH YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Thesis ...	285				
Shop Management and Costs	130	1	0	1	0
Machine Design . .	233	2	4½	0	0
German.	267	1	0	1	0
Inorganic Chemistry ..	109	1	0	2	0
Organic Chemistry .	110	1	0	1	0
AND ONE OF .					
Electrochemistry.	114, 115	2	*	2	*
Industrial Chemistry	112, 113	1	*	1	*
Sanitary and Forensic Chemistry and Bacteriology	116	1	*	2	*
Metallurgy ...	247	1	*	1	*

*All time not otherwise allotted must be spent in the various laboratories concerned in the proportions assigned by the Department.

7. DEPARTMENT OF ELECTRICAL ENGINEERING

The course in Electrical Engineering is arranged to provide preliminary training for those who would follow any of the various lines of activity connected with electrical industry.

The first two years of the course are devoted to fundamental scientific principles, and incidentally more or less of their application to engineering problems in mechanical, civil and electrical work. Many problems are solved in the drafting rooms by graphical methods. The third year includes further theoretical work, more particular attention being given to electrical and mechanical studies in theory, operation and design. The fourth year is devoted to advanced work in alternating current theory and practice combined with similar study in thermodynamics, hydraulics or electrochemistry.

A large amount of laboratory practice is provided, most of which belongs to the third and fourth years. In this last year most of the time is spent in laboratory investigations and studies resulting therefrom.

Candidates for the degree in this department will be required to present satisfactory evidence of having had at least eight months' experience in one of the principal trades connected with Electrical Engineering, the object being that graduates may have some practical knowledge of the technique of this branch of engineering. Certificate forms will be furnished on application. These forms contain full details in regard to the work required.

FIRST YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Calculus.	236	2	0	2	0
Analytical Geometry.....	238	1	0	2	0
Descriptive Geometry.....	160	1	0	1	0
Surveying.....	270, 271	1	5	1	0
Statics.....	1	2	0	2	0
Dynamics	2	2	0	2	0
Elementary Chemistry....	85	2	0	1	0
Electricity.....	135	2	0	2	0
Illuminating Engineering..	185	1	2	1	2
Technical English.....	122	1	0	1	0
Business.....	121	0	0	1	0
Engineering Drawing.....	166	0	11	0	18
Physical Training.....		0	2	0	2

SECOND YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Vacation Work.....	286				
Calculus.....	237	1	0	1	0
Descriptive Geometry. .	162	1	0	1	0
Dynamics	3	1	0	1	0
Mechanics of Materials. .	4	2	0	2	0
Engineering Chemistry . .	93	1	0	1	0
Organic Chemistry	95	0	0	1	0
Hydrostatics	186	0	0	1	1½
Elementary Machine Design	232	1	0	1	0
Electricity.	136, 137	2	3	2	3
Steam Engines.	216	1	0	1	0
Theory of Mechanism . . .	230	2	1½	2	1½
Economics and Finance. .	123	1	0	1	0
Chemical Laboratory	89	0	3	0	3
Engineering Drawing.....	166	0	12	0	12
Physical Training.....		0	2	0	2

THIRD YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Engineering Chemistry..	102	1	0	1	0
Thermodynamics.	217, 219	2	2	2	1½
Hydraulics.....	205	2	0	2	1
Heat Engines.....	218	1	0	1	0
Mechanics of Machinery.	231	1	0	1	0
Machine Design.....	233	2	4½	2	4½
Alternating Current.....	139	1	0	1	0
Physical Metallurgy.....	244	0	0	2	0
Electrochemistry.....	107, 108	2	3	0	0
Magnetism and Electricity.	138	2	0	2	0
Electrical Design.	141, 142	1	3	1	3
Commercial Law.....	124	1	0	1	0
Electrical Laboratory....	140	0	6	0	6

FOURTH YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Thesis.....	285				
Engineering Economics..	125	0	0	1	0
Shop Management and Costs	130	1	0	1	0
Applied Electricity.....	145, 146	4	20	4	19
AND ONE OF:					
Hydraulics.....	207, 208, 209	3	10	3	10
Thermodynamics... .	220, 221, 222	3	9	3	9
Electrochemistry.....	114, 115	2	9	2	9

8. DEPARTMENT OF METALLURGICAL ENGINEERING

The object of this course is to provide instruction and preliminary training for those who intend to become metallurgical engineers. Candidates for the degree in this department will be required to present satisfactory evidence of having had at least eight months' experience in metallurgical work.

FIRST YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Calculus.	236	2	0	2	0
Analytical Geometry. .	238	1	0	2	0
Descriptive Geometry .	160	1	0	1	0
Surveying	270, 271	1	5	1	0
Statics	1	2	0	2	0
Dynamics	2	2	0	2	0
Elementary Chemistry.	85	2	0	1	0
Electricity	135	2	0	2	0
Technical English . .	122	1	0	1	0
Business.	121	0	0	1	0
Mineralogy Laboratory..	256	0	0	0	3
Engineering Drawing . .	166	0	11	0	14
Physical Training.....		0	2	0	2

SECOND YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Dynamics.....	3	1	0	1	0
Mechanics of Materials..	4	2	0	2	0
Chemistry.....	87, 88, 91	2	14	1	13
Metallurgy.....	241, 242	1	0	2	0
Geology and Ore Deposits.....	196	1	1	1	1
Steam Engines.	216	0	0	1	0
Electricity.	136, 137	2	3	2	3
Spanish.....	268	1	0	1	0
Economics and Finance..	123	1	0	1	0
Engineering Drawing....	172	0	3	0	6
Physical Training.....		0	2	0	2

THIRD YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Engineering Chemistry .	102	1	0	1	0
Cements and Concrete...	11	0	0	1	0
Heat Engines.	218	1	0	1	0
Electricity.....	143, 144	1	3	1	3
Electrochemistry. . . .	107, 108	2	3	0	0
Assaying.....	45, 46	1	4	0	0
Ore Dressing.	58, 59	1	3	1	3
Mining.....	51, 52	1	0	1	0
Metallurgy.. . . .	245, 246	3	6	2	6
Machine Design. . . .	233	2	0	2	3
Commercial Law. . .	124	1	0	1	0
Chemical Laboratory. .	101	0	0	0	6
Engineering Drawing .	177	0	3	0	0

FOURTH YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect.	Lab'y	Lect.	Lab'y
Thesis...	285	0	6	0	6
Engineering Economics..	125	0	0	1	0
Contracts and Specifica- tions.....	127	0	0	1	0
Plant Management.....	129	1	0	0	0
Thermodynamics.....	223	1	0	1	0
Assaying	47, 48	0	0	1	3
Ore Dressing	60, 61	1	6	1	0
Electrochemistry.....	114, 115	2	3	2	3
Metallurgy.....	249, 250	2	8	2	8
Metallurgy Problems...	248	2	0	2	
Power {	Thermodynamic Laboratory....	224	0	3	0
	Hydraulic Lab- oratory.....	210	0	0	3

OUTLINE OF LECTURE AND LABORATORY COURSES

On the following pages the courses of instruction are set forth in detail. The time devoted to the various subjects, both for lectures and practical work, is indicated as accurately as possible.

The courses are designed to give the student a sound training in the fundamental scientific principles on which the various branches of engineering are based. The instruction is given by means of lectures and practical work in the laboratories, the drafting rooms and the field.

The courses in the first two years are devoted to the theoretical and essential scientific requirements of the engineering profession as a whole, with an introduction in a few cases of the practical application of these to engineering problems.

In the third and fourth years, the subjects of the former years are continued with particular attention paid to their application to modern engineering practice in the problems of design, erection, installation and operation peculiar to the several branches of the profession.

APPLIED MECHANICS

1. *Statics*:—T. R. Loudon.

All Departments, I. Year; 2 hours per week, both terms.

This course of lectures deals with forces in a single plane, and concerns chiefly the calculation of tension, compression and shearing stresses in frame structures and solid beams. It also deals with the consideration of problems relating to friction.

2. *Dynamics*:—J. McGowan.

Departments 1, 2, 3, 6, 7, 8, I Year; 2 hours per week; both terms.

This course of lectures deals with bodies having motion of translation in one plane; also with relative motion, momentum, work and energy.

Text Book:—Tutorial Dynamics—Briggs and Bryan.

3. *Dynamics of Rotation*:—W. J. Loudon.

Departments 1, 2, 3, 7, 8, II Year; 1 hour per week; both terms.

This course covers angular motion, including moments of inertia, simple harmonic motion, the pendulum, centres of mass, suspension and percussion, the simple theory of the fly-wheel and the governor.

Text Book:—Dynamics of Rotation—Worthington.

4. *Mechanics of Materials*:—P. Gillespie.

Departments 1, 2, 3, 6, 7, 8, II Year; 2 hours per week; both terms.

In this course the strength and elasticity of materials are mathematically treated. The stresses in such elements of structures as the tie rod, the beam, the strut and the member subjected to shear are investigated and the elementary principles of design established. In the lecture and drafting rooms through numerous problems involving the design of simple beams, columns, riveted connections, etc., these principles are exemplified. The work includes also the discussion of eccentric loading, suddenly applied loads and repeated stresses.

Reference Book:—*Mechanics of Materials*—Merriman.

5. *Mechanics of Materials*:—T. R. Loudon.

Department 4, II Year; 2 hours per week; both terms.

This course deals with the mathematical consideration of stress and elasticity. Among the problems taken up are the consideration of riveted joints, theory of simple and continuous beams, the theory of columns and simple column footings.

6. *Theory of Structures*:—C. R. Young.

Department 1, III Year; 2 hours per week; both terms

The work of the first term comprises a thorough discussion of combined stresses, restrained, continuous and trussed beams, multiple beams and box girders, plate girders and certain practical aspects of column design. A number of designs of girders and structural details are worked out in the class and drafting rooms.

The second term is given chiefly to the design of a riveted truss highway span and a riveted truss railway span, the complete designs being made in the lecture and drafting rooms.

Text Books:—*Modern Framed Structures*, Part III—Johnson, Bryan and Turneaure, *Structural Problems*—Young; *Carnegie Pocket Companion*; *Cambria Steel*.

7. *Theory of Structures*:—C. R. Young.

Departments 2, 3, 6, III Year; 2 hours per week; first term.

The work is practically the same as that for Department I in the first term.

8. *Structural Design*:—T. R. Loudon.

Department 4, III Year, 2 hours per week; both terms.

During the first term, the economics of the design of floor systems in timber and structural steel are discussed. The design of masonry piers, structural steel and timber columns is also gone into in the first term.

The second term is taken up in the discussion of the design of roof trusses and plate girders.

9. *Mechanics of Materials*:—J. McGowan.

Department 1, 2, 3, 4, III Year; 3 hours per week; one term.

This laboratory course is intended to give the student an introduction to the experimental study of the strength and elasticity of materials. It is intended that he shall acquire some familiarity with the construction and operation of testing machines and with the properties of the ordinary building materials.

Reference Book —Laboratory Instructions, Department of Applied Mechanics, U. of T., 1922.

10. *Stress Graphics*:—T. R. Loudon.

Department 1, III Year, one hour per week, both terms.

Department 3, III Year; one hour per week; first term.

This course of lectures deals mainly with graphic methods of solving stresses in framed structures. The construction of Shearing Force diagrams, Bending Moment diagrams and Influence Lines is also dealt with.

11. *Cements and Concrete*.—P. Gillespie.

Departments, 1, 8, III Year, one hour per week, second term.

The manufacture, testing and use of Portland cement and the fundamentals of the theory of reinforced concrete are discussed in this course of lectures.

12. *Theory of Structures*:—J. McGowan.

Departments 1, 3, IV Year; 2 hours per week; both terms.

The work taken up in this course of lectures consists in swing bridges, arches, suspension bridges and some special features in column construction.

Reference Books:—Modern Framed Structures—Johnson; Typical Steel Railway Bridges—Thomson.

13. *Mechanics of Materials*:—P. Gillespie.

Departments 1, 3, IV Year; a laboratory course of 3 hours per week one term and 6 hours per week the other term.

This course of experiments is intended to give the student practice in investigating the elastic and physical properties of iron, steel, concrete, timber and other building materials.

Reference Book:—Materials of Construction—Johnson.

14. *Foundations, Retaining Walls and Dams*:—P. Gillespie, W. J. Smither.

Department 1, IV Year; 1 hour per week; both terms.

This course of lectures is devoted to the design of the structures mentioned. Preparatory to the discussion of the practical aspects of the subjects, and in order to gain familiarity with the fundamental principles involved, a part of the first term is given over to the consideration of the theory of compound stress. The most approved forms of construction of retaining walls, footings, abut-

ments, piers and dams are then described, and typical designs are worked out in the class and drafting rooms.

Text Books and Books of Reference:—Retaining Walls for Earth—M. A. Howe; Walls, Bins and Grain Elevators—M. S. Ketchum; A Treatise on Masonry Construction—I. O. Baker, Design and Construction of Dams—E. Wegmann.

15. *Reinforced Concrete*:—P. Gillespie.

Departments 1, 4, IV Year; 1 hour per week; both terms.

The theory of the strength of reinforced concrete elements including the beam, the slab, the T-beam and the column, is continued in this course.

The analysis of the monolithic arch by the elastic theory is discussed, and the student is required in the drafting room to apply his knowledge to the design of simple structures.

Reference books:—Principles of Reinforced Concrete Construction—Turneure and Maurer; Reinforced Concrete Construction, Vol. I—Hool.

16. *Structural Design*:—T. R. Loudon.

Department 4, IV Year; 1 hour per week, both terms.

During this course of lectures, the economics of the design of complete buildings in timber, reinforced concrete and steel are discussed.

This course of lectures is supplemented by the actual designing of buildings in the drafting room.

17. *Structural Design*:—C. R. Young, W. J. Smither.

Department 1_c, 1_d, IV Year; 1 hour per week; both terms.

Department 1_b and 3, IV Year; 1 hour per week; first term.

This course of lectures is devoted to the problems connected with the structural design of buildings of timber, steel and reinforced concrete. The various structural elements such as the floors, columns, footings, walls and wind bracing, are fully discussed, and portions of typical buildings are designed in the class and drafting rooms.

Text Books:—Handbook of Building Construction—Hool and Johnson, Architects' and Builders' Handbook—Kidder—Nolan.

18. *Mill Building Design*:—C. R. Young, W. J. Smither.

Departments 1_c, 1_d, 3 and 4, IV Year; 1 hour per week; first term.

Consideration is given in this course to the various types of mill buildings, to the conditions governing the choice and to the details of construction in different materials. Designs of portions of mill buildings are worked out in the class and drafting rooms.

Text Books:—Mill Buildings—Tyrrell; Steel Mill Buildings—Ketchum.

19. *Miscellaneous Structures*.—W. J. Smither.
Department 1, IV Year; 1 hour per week; second term.
In this course of lectures the application of theoretical principles to the design of a variety of structures is made. Among those structures discussed are transmission line towers, elevated tanks and their supporting towers, standpipes, large pressure pipes, sewers, culverts, small highway bridges, sub-surface tanks and tall chimneys. Whenever possible the lecture work is followed up by designs in the drafting room.
20. *Railway Structures*.—C. R. Young.
Department 1, IV Year; 1 hour per week; first term.
A course of lectures with exercises covering alternative bridge layouts with comparative estimates of costs; temporary and permanent trestles; tunnels; tunnels vs. bridges; buildings; snow sheds and shelters.

ARCHITECTURE

25. *History of Architecture*.—H. H. Madill.
Department 4, I Year; 1 hour per week; both terms.
In this course the development of architecture is treated very briefly and in an elementary manner, from the Pyramids of Egypt to the present day.
26. *History of Architecture*.—Adrian Berrington.
Department 4, II Year; 1 hour per week; both terms.
The Antique, Renaissance and the Modern styles are dealt with more fully than is possible in the elementary history.
27. *History of Architecture*.—A. W. McConnell.
Department 4, III Year; 1 hour per week; both terms.
In this course the work of the previous year is continued, with special attention given to the development of buildings in planning and detail.
28. *Elements of Architecture*.—H. H. Madill.
Department 4, I Year; 1 hour per week; both terms.
Lectures on the Five Orders of Architecture, their affiliated forms and the other elements used in design. Simple problems in elementary design involving the use of the orders and other elements are set from time to time.
29. *History of Ornament*.—H. H. Madill.
Department 4, II Year; 1 hour per week; both terms.
In this course the development of Ornament is traced from the beginning through Egyptian, Assyrian, Grecian, Roman, Byzantine,

Romanesque, Gothic and Renaissance styles." An attempt is made to analyze ornament of the best periods and to systematize the principles followed in form and colour. The development and types of mouldings are also studied.

30. *History of Fine Art*—C. W. Jefferys, Frederick Coates.
Department 4, III Year; 1 hour per week; both terms.
In the first term the course consists of an outline of the history and development of painting and of the minor pictorial arts from the earliest time until the present day.
In the second term an outline of the history and development of the different eras of sculpture ranging from the primitive to the present day, is given.
31. *Architectural Design*—A. W. McConnell and Adrian Berrington.
Department 4, II Year, 1 hour per week; both terms.
This course is given by means of individual instruction in the classroom by criticisms of the solutions of different problems set during the year and by a series of lectures. It is in this course that the student begins the serious study of design, continued practice in architectural drawing and rendering affords the training necessary to make the student a proficient draughtsman.
32. *Architectural Design*—A. W. McConnell and Adrian Berrington.
Department 4, III Year.
Theory and practice of Design
This course is given by individual instruction in the studio and by lectures. The greater part of the course is devoted to problems in design, and forms a continuation of the course given in the preceding year.
33. *Architectural Design*—A. W. McConnell and Adrian Berrington.
Department 4, IV Year.
The entire course is devoted to advanced academic training in designing the more monumental classes of buildings.
34. *Architectural Design*—A. W. McConnell and Adrian Berrington.
Department 4, IV Year; Architectural Engineering Option.
A short course of lectures and studio work referring especially to the artistic side of the design of commercial buildings.
35. *Freehand Drawing and Water Colour Painting*—C. W. Jefferys.
Department 4, I Year; 3 hours per week; both terms.
Drawing from still life objects. Primary free hand perspective.
Primary pencil, charcoal, and pen and ink rendering.
- 35a. Department 4, II Year; 3 hours per week; both terms.
Drawing and monochrome painting from still life.
Drawing from the cast.
Pencil, pen and ink, and monochrome rendering.

- Primary water colour.
 Drawing from landscape and natural objects.
- 35b. Department 4, III Year, 3 hours per week, both terms.
 Drawing from the cast
 Water colour from still life Water colour rendering
 Drawing from landscape and natural objects
 Students who are sufficiently advanced are admitted to the Fourth
 Year Life Drawing Class
- 35c. Department 4, IV Year, 3 hours per week, both terms.
 Water colour from still life and from landscape.
 Drawing from life
 Water colour rendering
36. *Modelling*.—Frederick Coates
 Department 4, I Year; 2 hours per week, both terms.
 The Orders Synopsis of styles.
- 36a. Department 4, II Year; 2 hours per week; both terms.
 Problems in figures and in relation to architecture.
- 36b. Department 4, III Year, 2 hours per week; both terms.
 Styles continued.
 Problems, combination of figure, ornament and architecture and
 their relative values.
- 36c. Department 4, IV Year; 2 hours per week; both terms.
 Modelling from life
 Anatomy
 Composition of groups.
37. *Building Measurement*.—C. H. C. Wright.
 Department 4, I Year; 1 hour per week; both terms.
 In this course of lectures the principles of measurements and mensur-
 ation with special reference to buildings will be discussed. With
 this is combined practice in measurements of existing buildings,
 quantities, etc.
38. *Building Materials*.—C. H. C. Wright.
 Department 4, III Year; 2 hours per week; both terms.
 The structural and aesthetic value of the various building materials.
39. *Sanitary Science*.—H. H. Madill.
 Department 4, IV Year; 1 hour per week; both terms.
 Modern plumbing, its design and installation, drainage, sewerage
 disposal and water supply.
40. *Heating and Ventilating*.—C. H. C. Wright.
 Department 4, IV Year; 1 hour per week; both terms.
 The design of different systems, where they should be used, heating
 specifications, etc.

ASSAYING, MINING AND ORE DRESSING

The work in Mining is directed more to the development of the proper attitude of mind towards mining problems than to the teaching of actual mining methods.

The teaching of Assaying has a two-fold function. The first is to give the student a working knowledge of the practice of the art, so that he can earn money as an assayer on graduation and use this as a stepping-stone to other positions. The second is to use the assaying laboratories for the training of the students in certain important phases of Engineering methods. The size of the apparatus, the completeness of the processes in short intervals of time, the extreme accuracy of results when so desired, the relation of the extent of error to time and method, the similarity of the academic laboratory to the field laboratory, all these permit an unrivalled opportunity for driving home much broad Engineering philosophy. The assaying processes and apparatus lend themselves peculiarly well for the development of a proper perspective in regard to errors and accuracy in measurements

The study of Ore Dressing, when accompanied by laboratory work in a well equipped ore dressing laboratory, is one of the most important of the Mining Engineering subjects. Not only is the mechanical treatment of ores a very important branch of Mining Engineering, but the mental processes involved in a study of the fundamental principles underlying the art and the compromise necessary for field practice form one of the best fields for the development of Engineering philosophy. From these points of view the ore dressing laboratory is exceptionally well equipped.

45. *Assaying*:—J. T. King.

Departments 2-8, III Year; 1 hour per week; first term.

A first course of lectures on the theory of fire assaying. Emphasis is laid not only on the chemical and metallurgical principles involved, but upon the errors inherent in operators as well as in methods.

Text Book—"Fulton" Manual of Fire Assaying.

46. *Assaying*:—J. T. King.

Departments 2-8, III Year; 3 hours per week; both terms.

A laboratory course in the determination of the precious metals in ores, milling and metallurgical products. Scorification and crucible assays of ores and products, pure and impure, fluxes, slags and solutions. Buckboard practice, ores with metallics. Copper and lead by electrolysis. Students are expected to do their later assays with despatch and a reasonable degree of accuracy. Neatness of work is required.

47. *Assaying*:—J. T. King.
Departments 2-8, IV Year; 1 hour lecture per week; second term.
A continuation of course 45. Complex ores. Combination assays.
The sampling and assay of bullion. The Platinum group metals.
Checks and corrections.
48. *Assaying*:—J. T. King.
Departments 2-8, IV Year; 3 hours per week; second term.
An advanced laboratory course in which some of the methods of course 47 are used.
49. *Assaying*:—J. T. King.
Department 6, III Year; 3 hours per week; one term.
An introductory laboratory course for Chemical Engineers. Some lecture instruction is given. An abbreviation of courses 45 and 46.
50. *Mining*:—H. E. T. Haultain and F. C. Dyer
Department 2, I Year; 3 hours per week; second term.
A laboratory course, including some lectures, being an introduction to certain mining and milling machinery and methods.
51. *Mining*:—H. E. T. Haultain.
Department 2, II Year and Department 8, III Year; 1 hour per week; first term.
An introductory course of lectures.
52. *Mining*:—H. E. T. Haultain.
Department 8, III Year; 1 hour per week; second term.
An extension of No. 51.
53. *Mining*:—F. C. Dyer.
Department 2, II Year; 3 hours per week; one term.
Continuation of No. 50. Rock drills, sampling methods, use of explosives.
54. *Mining*:—H. E. T. Haultain and F. C. Dyer.
Department 2, III Year; 2 hours per week; second term.
Principles of mining.
55. *Mining*:—H. E. T. Haultain.
Department 2, IV Year; 1 hour per week; both terms.
Special problems, estimates, reports.
56. *Mine Cost Keeping and Management*:—H. E. T. Haultain.
Department 2, IV Year; 1 hour per week; both terms.
One of the fundamental features that must not be lost sight of by the Mining Engineer is, that his work is designed primarily for purposes of financial profit. This course of lectures deals with

details from this point of view. The total cost of a ton of ore requiring as it does an understanding of the problems of amortization, is first dealt with in a broad way. Then are considered various problems of cost keeping, leading on to problems of time and motion study which are essential to the development of the fine points of the art in any particular mining problem. The latter part of the course deals with problems of management, the relations of members of the staff to each other, and the relations of the staff to labour.

57. *Ore Dressing*:—H. E. T. Haultain.

Department 2, II Year; 1 hour per week; first term.
An Introduction to the study of Ore dressing.

58. *Ore Dressing*:—H. E. T. Haultain and F. C. Dyer.

Departments 2 and 8, III Year; 1 hour per week; both terms.
The general principles of Ore dressing.

59. *Ore Dressing*:—F. C. Dyer.

Departments 2 and 8, III Year; 3 hours per week; both terms.
Work with crushing machinery, principles of crushing and grading screen analyses, concentration with gravity separation apparatus, etc.

60. *Ore Dressing*:—H. E. T. Haultain and F. C. Dyer.

Departments 2 and 8, IV Year; 1 hour per week; both terms.
No. 58 continued, study of flow sheets and special problems.

61. *Ore Dressing*:—F. C. Dyer.

Departments 2 and 8, IV Year; 6 hours per week; one term.
Advanced work with ore dressing appliances, ore testing and check mill runs.

62. *Physics of Ore Dressing*:—H. E. T. Haultain and F. C. Dyer.

Department 2, III Year; 1 hour per week; both terms.
Ore dressing methods involve a study of the laws governing the phenomena of surface tension, capillarity and colloidal solutions, in addition to those of hydrostatics and certain phases of hydraulics. This is embodied in a special course of lectures in conjunction with laboratory work in the Ore dressing laboratory

63. *Theory of Measurement*:—H. E. T. Haultain.

Department 2, II Year; 1 hour per week; one term.
This title is not an entirely suitable one for this course of lectures because it is generally applied to a study of the philosophy of extremely accurate measurements. The Mining Engineer has to continually make satisfactory use of measurements with a wide range of inaccuracy. This course of lectures deals with the

philosophy underlying the causes of these errors and the practical application of such approximations. The opportunity is taken in these lectures to deal with the subject of illustrating measurements by graphs.

64. *Introductory Research*.—H. E. T. Haultain and F. C. Dyer.

Department 2, III Year; 3 hours per week; second term.

This is a laboratory course including some lectures and is a preparation for the thesis of the fourth year.

65. *Thesis*.

Department 2, IV Year; 7 hours per week; first term; 10 hours per week, second term.

Thesis in this department consists mainly in reports on original work done in the laboratories. In the III year the subject "Introductory Research" paves the way for the thesis. During the month of October the student decides on the subject of his thesis in consultation with his professors. After this is decided the student uses his own initiative in the development of his work.

The thesis is divided into three parts. The first part, which is handed in during the first week in November, contains the title, a statement of what the title is meant to convey and an outline of the work that is proposed to be done. The second part is handed in during the first week of January and contains a report of progress to date and enables the professor in charge to keep in closer touch with the work. The third and final part is handed in a week before the examinations and is a report of progress to date with final conclusions. The three parts combined constitute the thesis.

66. *Vacation Letters*.

Department 2, III Year and IV Year.

These are a series of letters written during the summer vacation, dealing with various aspects of a mining engineer's work. They are intended to direct and help the student's powers of observation, analysis and criticism as well as being exercises in the art of lucid technical expression. See page 20 for instructions.

67. *Vacation Work*.

Department 2, II Year.

See page 20 for detailed instructions.

ASTRONOMY AND GEODESY

71. *Astronomy, Elementary*:—C. A. Chant.

Department 1, II Year, 1 hour per week, both terms.

A course in descriptive Astronomy, explaining the ordinary astronomical terms, and describing the various celestial bodies and their motions. In the evenings opportunity will be given for identifying the stars and for observing with telescopes.

Text book:—Manual of Astronomy—C. A. Young.

72. *Astronomy and Geodesy*:—L. B. Stewart.

Department 1, III Year; 2 hours per week.

The course of lectures deals with the determination of time, latitude, longitude and azimuth, by methods adapted to the use of the surveyor's transit and the sextant. It is designed to fulfil the requirements of the final examinations for Ontario and Dominion Land Surveyors.

In Geodesy an account is given of the principles and methods of a secondary triangulation survey, also of the principles involved in the North-West system of survey.

Text books:—Practical Astronomy as applied to Geodesy and Navigation—Doolittle; Nautical Almanac, 1923.

73. *Field Work*:—L. B. Stewart, S. R. Crerar.

Department 1, III Year; about 2 hours per week, first term.

The practical work in this subject comprises observations in the field with the transit and sextant for the determination of time, latitude and azimuth by the methods described in the lectures.

74. *Astronomy (Advanced)*:—L. B. Stewart.

Department 1, IV Year; 2 hours per week.

The lecture course in this subject comprises the theory and adjustment of the instruments used in connection with a geodetic survey; the methods of taking and reducing observations for time, longitude, latitude, and azimuth, with the precision required on such a survey; and other matters relating to these subjects.

75. *Geodesy and Metrology*:—L. B. Stewart.

Department 1, IV Year; 2 hours per week.

The lecture course includes a description of the methods of measuring base lines and the angles of a triangulation, the geometry of the spheroid with applications to geodetic problems; the computation of geodetic positions; the solution of large triangles on the earth's surface, and the adjustment of a triangulation; trigonometric and precise spirit levelling; the determination of the figure of the earth by arc measurements, and by the pendulum; the theory of map projections, etc.

76. *Astronomy, Geodesy and Metrology*:—L. B. Stewart.

Department 1, IV Year; about 23 hours per week.

The practical work in the above subjects includes the observation of meridian transits for time and longitude determinations, and of prime vertical transits for latitude, with the astronomical transit instrument; the observation of meridian zenith distances of stars, and of azimuths at elongation for latitude, with the alt-azimuth; theodolite observations for azimuth; observations for latitude with the zenith telescope; the investigation of the constants of the instruments used, and the reduction of all observations; the measurement of a base line with the steel tape and with invar wires, and the determination of the constants of the tape; the measurement of the angles of a triangulation and the adjustment of the angles of network of triangles, etc.

BIOLOGY

80. *Elementary Biology*:—J. H. Faull.

Department 6, I Year, 3 hours per week, each term.

An elementary laboratory course on the nature and identification of plant and animal tissues and products, with microscope practice.

81. *Elementary Biology*:—E. M. Walker.

Department 1b, IV Year.

A special Course of Laboratory work and demonstrations in General Biology, five hours per week, first term.

82. *Hygiene and Bacteriology*:—J. G. Fitzgerald, R. D. Defries.

Departments 1b and 6, IV Year.

(1) This is a course of twenty-five lectures, dealing with the principles of Hygiene and Sanitary Science and including a discussion of the facts in Bacteriology which are necessary for a proper understanding of Hygiene and Sanitary Science. The particular phases of the subject which are of importance from the standpoint of Sanitary Engineering are dealt with.

(2) This is a laboratory course of six hours per week, second term, dealing especially with the Bacteriology of water, milk and sewage.

CHEMISTRY

85. *Elementary Chemistry*:—E. G. R. Ardagh.

All Departments, I Year; 2 hours per week, first term; 1 hour per week, second term.

A lecture course in elementary chemistry dealing with the metals and non-metals, with experimental illustrations.

86. *Inorganic Chemistry*:—L. J. Rogers.
Department 6, I Year; 10 hours per week, both terms.
A laboratory course of quantitative experiments illustrating the use of the sensitive balance, and confirming the fundamental laws of chemistry; qualitative inorganic analysis; quantitative analysis of pure salts; inorganic preparations; molar weight determinations.
Text book:—Manual of Chemical Analysis, Qualitative and Quantitative—Newth.
87. *Inorganic Chemistry*:—E. G. R. Ardagh.
Departments 2, 6 and 8, II Year; 1 hour per week, first term.
A lecture course on the chemistry of the metals, a continuation of Course 85.
88. *Analytical Chemistry*:—L. J. Rogers.
Departments 2, 6 and 8, III Year; 1 hour per week, both terms.
A lecture course on the principles of chemical analysis; select gravimetric and volumetric methods; technical analysis.
89. *Analytical Chemistry*:—E. G. R. Ardagh.
Departments 1, 2, 3 and 7, II Year, 3 hours per week.
Laboratory practice in elementary qualitative and quantitative analysis.
Text book:—A Smaller Chemical Analysis—Newth.
90. *Analytical Chemistry*:—J. W. Bain.
Department 2, II Year; 3 hours per week, both terms.
A laboratory course in the gravimetric determination of metals and acids, with elementary volumetric analysis.
Text book:—A Manual of Chemical Analysis, Qualitative and Quantitative—Newth.
91. *Analytical Chemistry*:—L. J. Rogers.
Department 8, II Year; about 12 hours per week.
A laboratory course comprising gravimetric and volumetric methods, acidimetry and alkalimetry
Text book:—A Manual of Chemical Analysis, Qualitative and Quantitative—Newth.
92. *Analytical Chemistry*:—L. J. Rogers.
Department 6, II Year; 10 hours per week, first term; 12 hours per week, second term.
A laboratory course in qualitative and elementary quantitative chemical analysis; inorganic preparations.
Text book:—A Manual of Chemical Analysis, Qualitative and Quantitative—Newth.

93. *Engineering Chemistry*:—J. W. Bain.
Departments 1, 3, 6, 7, and 8, II Year; 1 hour per week; second term.
A lecture course consisting of a study of the industrial production and application of heat and light, and of the chemistry of fuel and the products of combustion.
94. *Industrial Chemistry*:—J. W. Bain.
Department 6, II Year, 1 hour per week, both terms.
A lecture course on the manufacture of salts, acids, alkalies and inorganic chemicals
95. *Organic Chemistry*:—M. C. Boswell.
Departments 1, 2, 3 and 7, II Year, 1 hour per week, second term.
A lecture course in elementary organic chemistry.
96. *Organic Chemistry*:—M. C. Boswell
Department 6, II Year, 2 hours per week, both terms.
A lecture course dealing with the aliphatic compounds.
97. *Organic Chemistry*:—M. C. Boswell.
Department 6, II Year; 60 hours.
A laboratory course in organic preparations.
98. *Physical Chemistry*:—F. B. Kenrick
Departments 6, II Year; 2 hours per week, both terms.
A course of lectures on the elements of chemical mechanics, and the theory of solutions.
99. *Analytical Chemistry*:—E. G. R. Ardagh.
Department 2, III Year; 3 hours per week, first term; 6 hours per week, second term.
A laboratory course on the technical analysis of ores and furnace products.
100. *Industrial Chemistry*:—E. G. R. Ardagh.
Department 6, III Year, about 10 hours per week.
A laboratory course in industrial chemistry
101. *Analytical Chemistry and Phase Rule*:—L. J. Rogers, J. T. Burt-Gerrans.
Department 8, III Year; about 6 hours per week.
A laboratory course in analysis and phase rule.
102. *Engineering Chemistry*:—J. W. Bain, E. G. R. Ardagh.
Departments 1, 2, 3, 6 and 7, III Year; 1 hour per week, both terms.
A lecture course on the application of chemistry to engineering problems; air, water, sewage, the materials of construction, explosives, etc.

103. *Industrial Chemistry*:—E. G. R. Ardagh.
Department 6, III Year; 1 hour per week, both terms.
A lecture course on petroleum and its products, coal tar and its products; fats, oils, soap, sugar, starch, and gums; fermentation industries, etc.
104. *Chemical Plant*:—J. W. Bain.
Department 6, III Year; 1 hour per week, both terms.
A lecture course on the machinery and plant used in chemical manufacturing.
105. *Organic Chemistry*:—M. C. Boswell.
Department 6, III Year; 2 hours per week, both terms.
A lecture course on the aromatic series.
106. *Organic Chemistry*:—M. C. Boswell.
Department 6, III Year; 85 hours.
A laboratory course in organic preparations in the aromatic series.
107. *Electrochemistry*:—W. L. Miller.
Departments 6, 7 and 8, III Year; Department 2, IV Year; 2 hours per week, first term.
A lecture course on elementary electrochemistry, illustrated by experiments.
108. *Electrochemistry*:—W. L. Miller and J. T. Burt-Gerrans.
Departments 6, 7 and 8, III Year; 3 hours per week, first term.
Department 2, IV Year.
A laboratory course in quantitative measurements to accompany Course 101.
109. *Inorganic Chemistry*:—J. W. Bain.
Department 6, IV Year; 1 hour per week, first term; 2 hours per week, second term.
A lecture course on chemical theory.
110. *Organic Chemistry*:—M. C. Boswell.
Department 6, IV Year; 1 hour per week, both terms.
A lecture course on advanced organic chemistry.
111. *Organic Chemistry*:—M. C. Boswell.
Department 6, IV Year.
A laboratory course in advanced organic chemistry.
112. *Industrial Chemistry*:—J. W. Bain.
Department 6, IV Year; 1 hour per week, both terms.
A lecture course on selected subjects in chemical technology.
113. *Industrial Chemistry*:—J. W. Bain, E. G. R. Ardagh, M. C. Boswell.
Department 6, IV Year.
A laboratory course in industrial problems.

- 114. *Electrochemistry*—J. T. Burt-Gerrans.**
 Department 6, 7 and 8, IV Year; 2 hours per week, both terms.
 An advanced lecture course on the theory of solutions and electrolysis, and the application to the practice of electro-deposition and electrolytic refining of metals. The course also includes lectures on the electric furnace with special consideration of efficiency.
 Text books:—Electrometallurgy—Borchers; Electrochemistry—Le Blanc; Electrochemistry—Luepke.
- 115. *Electrochemistry*—W. L. Miller and J. T. Burt-Gerrans.**
 Departments 6, 7 and 8, IV Year.
 A laboratory course accompanying Course 114
- 116. *Sanitary and Forensic Chemistry*—J. W. Bain.**
 Department 6, IV Year; 1 hour per week, both terms.
 A lecture course on the composition and examination of air, water and food; poisons and their detection, with accompanying laboratory course.
- 117. *Sanitary Chemistry*—E. G. R. Ardagh.**
 Department 1b, IV Year.
 A lecture and laboratory course on water supply, sewerage disposal ventilation, etc.

ECONOMICS AND BUSINESS ADMINISTRATION

- 121. *Business*—**
 Departments 1, 2, 3, 6, 7, 8, I Year; 1 hour per week, second term.
 A lecture course on the principles underlying accounting and general business methods of a simple nature in order to enable the student to understand simple financial reports.
- 122. *Technical English*—S. G. Bennett.**
 All Departments, I Year; 1 hour per week, both terms.
 A lecture course on the expression of ideas and the compilation and writing of different types of engineering reports; technical exposition; the derivation and use of technical terms; the necessity of accurate expression in professional writing; terminology; the use of graphic methods for presenting facts; abbreviations; numbers; symbols.
- 123. *Economics and Finance*—C. R. Fay.**
 All Departments, II Year; 1 hour per week, both terms.
 An introduction to the study of Economics. The course will deal in an elementary fashion with the following:
 (1) Scope and Method of Economics.
 (2) Theory of Value and Distribution.
 (3) Structure of Industry and Social Conditions.
 (4) Money, Banking and Public Finance.
 Text Book:—Economics for the General Reader—Clay.

124. *Commercial Law*:—A. R. Clute.

All departments, III Year; 1 hour per week, both terms. General Principles of the Law of Contracts, Principal and Agent, Partnership and Limited Companies (with special reference to the Companies Acts). General view of the following:—Negotiable Instruments, Sale of Goods, Bills of Sale and Chattel Mortgages, Suretyship and Guarantee

Text-Book:—Stephens' Elements of Mercantile Law (5th Ed., 1911.)

125. *Engineering Economics*:—C. R. Young.

Departments 1, 3, 7, 8, IV Year, 1 hour per week, second term.

A series of lectures on the principles by which the economic practicability of a project is judged and the comparison of competing proposals is made. Consideration is given to first cost and annual cost, methods of estimating, fixed charges and operating expenses, valuation and appraisals. Special attention is given to depreciation and the methods of providing for it, as well as to its relation to amortization. Typical numerical problems are discussed and solved.

Text Books:—Engineering Economics—Fish; Financial Engineering—Goldman.

126. *Engineering Law*:—

Department 1, IV Year; 1 hour per week, first term.

A course of lectures, co-ordinating Engineering practice and Law as contained in various legislation such as. The Railway Act, Municipal Act, Public Health Act, Arbitration Act, Workmen's Compensation Act, Patents, Copyrights, etc.

127. *Contracts and Specifications*:—C. R. Young.

Departments 1, 4, 8, IV Year; 1 hour per week, second term.

This course of lectures deals with the fundamental principles of contract and specification writing. The critical examination of typical specifications and agreements by the class, forms an essential feature of the instruction.

Text Books:—Engineering Contracts and Specifications—Johnson; Elements of Specification Writing—Kirby.

128. *Management*:—C. R. Young.

Department 1, IV Year; 1 hour per week, first term.

A series of lectures dealing with the fundamental principles upon which management is based. The possibilities of effective management are indicated and its basis is shown to exist in favourably operating conditions, suitable organization and smooth administration. Consideration is given to such matters as selection of personnel, essentials of effective organization for enterprises of widely different character and the art of directing a force so as to attain a desired end in an expeditious and effective manner.

Text Books—Principles of Industrial Organization—Kimball; Administration of Industrial Enterprises—Jones.

129. *Plant Management*.—G. A. Guess.
Department 8, IV Year; 1 hour per week, first term.
A course of twelve lectures dealing with some phases of labour, plant organization, smelter contracts and markets
130. *Shop Management and Costs*.—E. A. Allcut and H. W. Price.
Departments 3, 6, and 7, IV Year; 1 hour per week, both terms.
131. *Railway Economics*.—W. M. Treadgold.
Department 1, Option e, IV Year; 2 hours per week, both terms.
The object of this course is to make the student acquainted with the general principle of railroad engineering and the following branches of the subject will be discussed—economic theory of location, train resistance, effect of grade, distance and curvature, rise and fall, maintenance of way, yards and terminals, tunnels and street railway practice
132. *Municipal Administration*.—P. Gillespie, A. T. Laing.
Department 1, Option b, IV Year; 1 hour per week, both terms.
A course of lectures dealing with civics, local improvement laws and assessments, building codes, fire control, transportation, public utilities, etc.
133. *Public Speaking*.—
Department 1, III Year, 1 hour per week, first term.
A course on the principles of public speaking and the means of expression accompanied by practical application and training in actual speaking.

ELECTRICITY

(Subject matter and arrangement of lectures and laboratory courses is in process of revision for session 1922-23.)

135. *Electricity*.—H. W. Price.
Departments 1, 2, 3, 6, 7 and 8, I Year; 2 hours per week, both terms.
A course of lectures on basic principles relating to electric circuits, magnetic circuits, instruments and apparatus in general, distribution of electrical energy, etc., illustrated largely from commercial apparatus. The point of view of this work is quantitative rather than descriptive, for it is believed that men who can solve engineering problems are most likely to grasp underlying principles.
136. *Electricity*.—W. S. Guest.
Departments 3, 6, 7 and 8, II Year; 2 hours per week, both terms.
Deals with the theory of electrical measurements, and detailed study of various methods applicable under different conditions in engi-

neering practice to the measurement of resistance, current, potential difference, power and energy; calibration of commercial measuring instruments. The effect of choice of conditions of measurement on the accuracy of the result is considered.

137. *Electrical Laboratory*:—W. S. Guest.

Departments 3, 6, 7 and 8, II Year; 3 hours per week, both terms.

This laboratory course is closely associated with the lecture course 136 on electricity for the second year. The more important and useful methods of testing generators and circuits for electromotive force, resistance, current, grounds, etc., are practiced, often under conditions such as occur in practice. The work also includes methods of calibration of measuring instruments for voltage, current, power and energy, and certain studies of properties of incandescent lamps.

138. *Magnetism and Electricity*:—T. R. Rosebrugh.

Department 3, III Year; 2 hours per week, first term.

Department 7, III Year; 2 hours per week, both terms.

A course of lectures on theory of magnetism and magnetic circuits, theory of direct-current generators, motors, etc.

139. *Alternating Current*:—T. R. Rosebrugh.

Departments 3 and 7, III Year, 1 hour per week.

A first course of lectures on alternating current, covering principles of measurement and leading to the analytical and graphical treatment of the simpler problems relative to alternating-current circuits and machinery.

140. *Electrical Laboratory*:—A. R. Zimmer.

Department 3, III Year; 3 hours per week; Department 7, III Year; 6 hours per week.

This laboratory course is intended to afford the student an opportunity to become familiar with principles involved in continuous-current shunt, series and compound-wound generators and motors, and, to some extent, alternating-current circuits and machinery. Other sections of the work deal with the magnetic properties of iron and steel, and study of iron losses in transformers and generators.

The course is arranged to stand in close relation to the lecture courses in the subjects of magnetism and electricity and alternating current (138, 139) for III Year, and to certain design work (141).

141. *Electrical Design*:—H. W. Price.

Department 7, III Year; 1 hour per week.

A course of lectures dealing with design of electrical apparatus and machinery, accompanied by designs to be worked out in the design room.

142. *Electrical Design*:—H. W. Price.

Department 7, III Year; 3 hours per week

A design room is set apart for working out designs of electrical apparatus such as transformers, generators, motors, auxiliary apparatus, etc.

Special forms and notes are employed, arranged to suit the various studies. Certain models are provided to assist where necessary.

143. *Electricity*:—H. W. Price.

Departments 1, 2 and 8, III Year; 1 hour per week, both terms.

A continuation of Course 135, First Year, adapted to the requirements of non-electrical students. It deals with problems on direct-current circuits and apparatus; magnetic circuits; power measurements; alternating current principles and machinery; transmission; power-plants, etc.

144. *Electrical Laboratory*:—H. W. Price, A. R. Zimmer.

(a) Department 1.

III Year; 3 hours per week, first term.

IV Year; Option d, e, 3 hours per week, second term.

(b) Department 2.

IV Year; 3 hours per week, first term.

(c) Department 3.

IV Year; 3 hours per week, second term.

(d) Department 6.

III Year; 3 hours per week, first term.

(e) Department 8.

III Year; 3 hours per week, both terms.

These courses are arranged to suit the requirements of the departments concerned. The experiments are planned with the idea of affording a general knowledge of circuits, power measurements, direct-current and alternating current machinery and transmission of power.

145. *Applied Electricity*:—T. R. Rosebrugh and H. W. Price.

Department 7, IV Year; 4 hours per week.

This course deals by analytical and vector methods with the theory of alternating-current circuits and machinery. Applications of theory are considered with regard to transformers, single and polyphase generators, synchronous motors and rotary converters, induction and commutating series motors, transmission lines, wave analysis, etc.

146. *Electrical Laboratory*:—A. R. Zimmer.

Department 7, IV Year, in connection with 145; 20 hours per week.

This laboratory course involves a thorough study of principles and properties of single and polyphase circuits and apparatus. Both vector and analytical methods are applied to the solution of problems based on tests made on laboratory machines.

The work deals mainly with constant-voltage and constant-current transformers, single and polyphase alternators, synchronous motors, rotary converters, induction and single phase commutating motors, transmission line, etc. The work does not consist only of factory tests, but is designed to lead the student to apply theory to practice as illustrated in the apparatus under test, with a view to an exact understanding of methods and an appreciation of limitations under many conditions. Free use is made of the oscillograph as a necessary device for "seeing" conditions under investigation. The best commercial measuring instruments are available.

ENGINEERING DRAWING AND DESCRIPTIVE GEOMETRY

160. *Descriptive Geometry*:—J. R. Cockburn.

Departments 1, 2, 3, 6, 7 and 8, I Year; 1 hour per week; both terms.

This course of lectures deals chiefly with the principles of orthographic and oblique projections and the application of such principles to the solutions of problems relating to straight lines and planes.

161. *Descriptive Geometry*:—J. R. Cockburn.

Department 4, I Year; 1 hour per week; both terms.

This course of lectures deals chiefly with the principles of orthographic and oblique projections and the application of such principles to the solution of problems relating to straight lines and planes, special reference being made to the determination of shades and shadows.

162. *Descriptive Geometry*:—J. R. Cockburn.

Departments 1, 2, 3, 7 and 8, II Year; 1 hour per week, both terms.

This course of lectures is a continuation of the work taken in the first year with the following additions: Problems relating to curved surfaces, principles of shades, shadows and perspective.

163. *Descriptive Geometry*:—J. R. Cockburn.

Department 4, II Year; 1 hour per week, both terms.

This course of lectures is a continuation of the work taken in the First Year with the addition of problems relating to curved surfaces, shades, shadows and perspective.

164. *Descriptive Geometry*:—J. R. Cockburn.

Department 1, III Year; 1 hour per week, first term.

This course of lectures deals with spherical projections, the principles of mapmaking, and the graphical solution of spherical triangles.

165. *Descriptive Geometry*:—J. R. Cockburn.
Department 4, III Year; 1 hour per week, first term.
Advanced work in shades, shadows and perspective.
166. *Engineering Drawing*:—J. R. Cockburn.
Departments 1, 2, 3, 7 and 8, I Year, 11 hours per week, first term, 18 hours per week, second term.
Copying from the flat, lettering, topography; graphical solution of problems in statics; problems in descriptive geometry, relating to both orthographic and oblique projections; the plotting of original surveys; measured drawings.
167. *Architectural Drawing*:—J. R. Cockburn, H. H. Madill.
Department 4, I Year, 9 hours per week first term, 18 hours per week, second term.
Copying from the flat, lettering, rendering the graphical solution of problems in statics; problems in descriptive geometry, relating to both orthographic and oblique projections; measured drawings. Elements and principles of Architecture.
168. *Engineering Drawing*:—J. R. Cockburn.
Department 6, I Year, 4 hours per week, both terms.
Copying from the flat, lettering, graphical solution of problems in statics, problems in descriptive geometry
169. *Engineering Drawing*:—J. R. Cockburn.
Departments 1 and 2, II Year. Department 1, 4½ hours per week, first term; 13½ hours per week, second term. Department 2, 3 hours per week first term; 12 hours per week, second term.
Colouring and shading as applied to both topographical and construction drawings; problems in descriptive geometry relating to solids bounded by curved surfaces; principles of shades, shadows and perspective; solution of problems in optics and strength of materials; measured drawings; elementary design.
170. *Engineering Drawing*:—J. R. Cockburn.
Departments 3 and 7, II Year; Department 3, 13 hours per week, first term; 11 hours per week second term; Department 7, 12 hours per week, both terms.
Coloring and shading as applied to construction drawings; problems in descriptive geometry relating to solids bounded by curved surfaces; principles of shades, shadows and perspective; solution of problems in optics, theory of mechanism and strength of materials; measured drawings; elementary design.
171. *Architectural Drawing*:—J. R. Cockburn, A. Wellesley McConnell, H. H. Madill.
Department 4, II Year; 17 hours per week, both terms.

Exercises from the orders of architecture, principles of shades, shadows and perspective; elementary architectural design; problems in descriptive geometry relating to solids bound by curved surfaces; solution of problems in optics and strength of materials, measured drawings.

172. *Engineering Drawing*:—J. R. Cockburn.

Department 6, II Years; 7 hours per week, first term; 3 hours per week, second term.

Department 8, II Year; 3 hours per week, first term; 6 hours per week, second term.

(Same as Department 3 with the exception that Dept. 6 has no descriptive geometry)

173. *Engineering Drawing*:—J. R. Cockburn, C. R. Young.

Department 1, III Year, 15 hours per week first term; 12 hours per week, second term.

Principles of mapmaking, spherical projection, plotting of original surveys relating to topographical and railway work; problems in theory of construction; original design of various structures; measured drawings.

174. *Engineering Drawing*:—J. R. Cockburn.

Department 2, III Year; 9 hours per week, first term.

Plotting of original surveys, relating to topographical and railway work and mining; problems in theory of construction; original design; measured drawings.

175. *Architectural Drawing*:—J. R. Cockburn, A. Wellesley McConnell, H. H. Madill.

Department 4, III Year; 18 hours per week, both terms.

Architectural design, advanced work in monochrome and colours; problems in shades, shadows and perspective, problems in theory of construction, including framed structures.

176. *Architectural Drawing*:—J. R. Cockburn.

Department 4, III Year; 1 hour per week, first term.

Advanced work in shades, shadows and perspective.

177. *Engineering Drawing*:—J. R. Cockburn, C. R. Young.

Departments 3, 6 and 8, III Year; Department 3, 9 hours per week, first term; Department 6, 6 hours per week, first term; Department 8, 3 hours per week, first term.

Problems in design dealing with the theory of structures.

178. *Structural Design Drawing*:—C. R. Young, W. J. Smither.

Department 1, IV Year; 22 hours per week, both terms.

Problems in structural design.

179. *Structural Design Drawing*.—C. R. Young, W. J. Smither.
Department 1, IV Year; 4 hours per week, first term; 8 hours per week second term.
Problems in structural design.
180. *Structural Design Drawing*.—C. R. Young, W. J. Smither.
Departments 3 and 4, IV Year; 3 hours per week, both terms.
Problems in mill building design
181. *Structural Design Drawing*.—C. R. Young, W. J. Smither.
Department 3, IV Year; 4 hours per week, first term, 6 hours per week, second term.
Problems in structural design.

ENGINEERING PHYSICS

185. *Illuminating Engineering and Optics*.—G. R. Anderson.
Departments 1, 3, 7, I Year;
Rectilinear propagation of light, illumination, photometry, light standards. Distribution of light by reflectors and diffusers, general and selective absorption, economic values of artificial lights. Illumination calculations.
Laws of reflection and refraction, theory of optical instruments.
Light considered as wave motion, dispersion, spectrum analysis, colour phenomena, polarization.
Lectures and laboratory work, both terms.
186. *Hydrostatics*.—G. R. Anderson.
Departments 1, 3, 6, 7, II Year.
Laws of fluid pressure and application to machines. Density of solids, and fluids, theory of flotation.
Lectures and laboratory work. Spring term.
187. *Heat*.—G. R. Anderson.
Departments 1, II Year.
Generation and propagation of heat. General and industrial thermometry, calorimetry and pyrometry. Linear and cubical expansion, gas laws. Specific heat of solids, liquids and gases, latent heat of fusion and vaporization. Mechanical equivalent of heat. Carnot cycle.
Lecture and laboratory work, Fall term.
188. *Photography*.—G. R. Anderson.
Department 1, II Year.
The camera and its adjustments, lenses, shutters, screens. Plates for various purposes, films, prevention of halation. Lighting, exposure, development. Paper of various kinds, printing, enlarging—31

ment and reduction, blue printing and allied processes Record photography, photogrammetry and photo-surveying. Photography in colour

Lectures Fall term, and laboratory work both terms.

189. *Illumination*:—G. R. Anderson.

Department 4, II Year.

Principles of interior and street illumination. Artificial lighting of public and private buildings, etc.

190. *Acoustics*:—G. R. Anderson.

Department 4, III Year.

Wave motion, propagation, reflection and transmission of sounds.

Laws of vibrating strings, pipes and forks. Velocity of sounds

Musical scales. Absorption of sound by various substances, use

of deadening material in buildings. Amount of reverberation

permissible and desirable in public buildings. Lectures and

laboratory work.

191. *Photographic Surveying*: G. R. Anderson.

Department 1a, IV Year; 1 hour lecture and 2 hours laboratory, first term.

This course presupposes a general knowledge of photographic processes as given in the second year. Treatment of a photograph as a perspective drawing from which plan and elevation to scale may be obtained under certain conditions. The intersection method of photographic surveying, its advantages and limitations. The stereoscopic method with its advantages and disadvantages. Method of plotting. Accuracy of results.

GEOLOGY

195. *Geology (Elementary)*:—W. A. Parks.

Departments 1, 2, II Year, 2 hours per week, second term.

This course deals chiefly with historical geology with special reference to Canadian formations.

Reference books:—Introduction to Geology—Scott; Text Book of Geology—Dana.

196. *General Geology*:—A. MacLean.

Department 8, II Year; 2 hours per week, both terms.

Lecture and laboratory work on Historical, Structural and Economic Geology, designed to familiarize the student with the more important principles, facts and terms of general geology.

197. *Engineering Geology*.—A. MacLean.
Department 1, III Year; 1 hour per week, both terms.
This course deals with the application to Engineering of Dynamic, Structural and Economic Geology.
198. *Economic Geology* (including Dynamic and Structural Geology).—A. P. Coleman.
Department 2, III Year, 1 hour per week, first term; 2 hours per week, second term.
A study of the more important economic rocks, minerals and ores with their geological associations. Special attention paid to Canadian deposits.
199. *Advanced Geology*:—A. P. Coleman.
Department 2, IV Year; 2 hours per week, both terms.
Pre-Cambrian Geology—An account of the Keewatin, Huronian and Laurentian rocks of Canada, with their distribution, structural relations and economic features, and briefer accounts of similar formations in the United States and elsewhere.
Works of Reference:—Reports of the United States and Canadian Geological Surveys, of the Bureau of Mines of Ontario, etc.
Pleistocene Geology—Lectures on the formation and distribution of the drift deposits of North America, with brief references to other regions. Glacial, Interglacial and Postglacial beds are described, changes of climate are discussed with their probable causes, and the economic features of the clays, sands and gravels are pointed out. A weekly excursion is made during October and November to points of interest near Toronto, which is the centre of the most important development of Pleistocene in America.
Physiography—A course of lectures on the surface forms of the earth, with the geological factors which have produced them. The broad features of the earth, its plains, tablelands, hills, valleys, mountains, oceans, rivers and lakes are discussed in a general way, methods of topographical surveys and mapping are referred to, and the chief physiographic areas of Canada are described
200. *Mining Geology*:—A. P. Coleman.
Department 2, IV Year, 1 hour per week, both terms.
A course of lectures on geological problems associated with mining, typical mining regions in Canada, the United States and elsewhere being discussed from the geological side.
Works of reference:—Mineral Industry and the books mentioned under (A).
201. *Geological Excursions*:—A. P. Coleman.
Department 2, IV Year.
Trips to points of interest in the vicinity of Toronto.

202. *Ore Deposits*.—A. P. Coleman.

Department 2, III Year, 1 hour per week, both terms.

Discussion of the origin and classification of ore deposits in a general way, the mode of occurrence of the chief metals, and statistics of production, special attention being given to the metals mined in Canada.

203. *Economic Geology*.—Alex MacLean.

Department 2, III Year; 2 hours per week, second term.

Laboratory work on ores, manner of occurrence, vein structure, etc.
Geological maps of typical mining regions.

204. *Special Geology*.—A. MacLean.

Department 1, Option e, IV Year; 1 hour lecture and 1½ hour laboratory per week, second term.

A lecture and laboratory course on Superficial Geology, Physiographic Control, Water Geology, etc.

HYDRAULICS

205. *Hydraulics*.—R. W. Angus.

Departments 1, 2, 3, 6, 7, III Year; 2 hours per week, both terms.

This is a course of lectures in hydraulics devoted to the development and discussion of formulae relating to the flow of water in pipes, the measurement of discharge by various methods, such as orifices and weirs, the conditions of flow obtaining in open channels, artificial and natural, and in pipes flowing partially full, together with other kindred subjects.

The object of this course is to provide the student with a good working knowledge of the fundamental principle of hydraulics, such as is useful in practical work, and is necessary to the intelligent investigation of more advanced problems, such as the design of water supply, sewerage and irrigation system, and water power plants.

206. *Hydraulic Laboratory*.—R. W. Angus, R. Taylor.

Departments 1, 3, III Year; one 3 hour period per week, second term.

Departments 6, 7, III Year; 4 periods of 3 hours each.

The work in this course is intended to illustrate the lecture course given in hydraulics and to give the student some working acquaintance with the formulae met with in practice. Experiments are made to determine the coefficients for orifices of the various types used in practice and for a weir. The results of these experiments are used in measuring the discharge in subsequent experiments on meters and for the determination of hydraulic resistances in various cases of flow in pipes. The complete course illustrates very fully the application of the course of lectures to actual cases.

207. *Hydraulics*.—R. Taylor.

Departments 1, 3, 7, IV Year; 1 hour per week, both terms

A study of the collection of stream flow data is followed by an investigation of precipitation and evaporation and their relation to run-off. The application of this information to the design of irrigation works is discussed in some detail and also a problem on the design of a complete hydraulic power plant, including the canal, is worked out, and this is supplemented, where possible, by a problem on an irrigation system. Application of the work is also made to the design of such a problem as is presented by a storm sewer.

208. *Hydraulics*.—R. W. Angus.

Departments 1, 3, 7, IV Year; 2 hours per week, both terms.

The most important question considered and to which most of the lectures are devoted is the theory of turbines and centrifugal pumps, the effect of the design on the speed, discharge power and efficiency being fully taken up. This course also includes some of the problems mentioned in the previous course, such as the proper selection of irrigation pumps, water turbines, etc.

Text Books:—Centrifugal Pumps—Daugherty Water Power Engineering—Mead.

209. *Hydraulics*.—R. W. Angus, R. Taylor.

Departments 1, 3, 7, IV Year; about 10 hours per week in 3 hour periods.

A laboratory course devoted to experimental work on turbines of various types and centrifugal and turbine pumps and other similar devices. This experimental work is arranged to illustrate the lectures on turbine and pump design. The experiments are made on two large turbine pumps used in the laboratory supply, as well as on apparatus specially designed for instruction. Various methods of measuring water-power and the efficiency of machines are also given. A list of the equipment now available, and which is used in this course, is given at the end of the Calendar.

210. *Hydraulic Laboratory*.—R. Taylor.

Department 2, 8, IV Year; Eight 3 hour periods.

A laboratory course of experiment on orifices, weirs and meters.

211. *Hydraulics*.—R. Taylor.

Department 1b, 1e, IV Year, one hour lecture per week, first term.

A laboratory course of 3 hours per week, first term, on measurement of water, flow in open channels and on pumps.

HEAT ENGINES

216. *Steam Engines*:—E. A. Allcut.

Departments 3, 7, II Year; 1 hour per week, both terms.

Departments 2, 8, II Year, 1 hour per week, one term.

This course of lectures includes a discussion of the principles of action of the steam engine; also the theory and design of various simple forms of valve gears used in the operation of such engines.

217. *Thermodynamics*:—R. W. Angus.

Departments 3, 6 and 7, III Year; 2 hours per week.

A lecture course in which the subject is treated in such a way as to make it of practical value and give a working acquaintance with the principles on which it is based. After the elementary ideas have been given and the proofs of the properties of Carnot's cycle, applications of the subject are made to the perfect gas, air, saturated steam and to the various types of engines.

218. *Heat Engines*:—E. A. Allcut.

Department 3, III Year, 2 hours per week, both terms.

Department 7 and 8, III Year, 1 hour per week, both terms.

This course in heat engines is intended for students in Mechanical, Electrical and Metallurgical Engineering, to be supplementary to the general course of lectures in thermodynamics.

The principal commercial forms of heat engines are dealt with in a more or less descriptive manner; special attention is given to considerations affecting the design of the ordinary forms of steam engines, gas engines and oil engines.

219. *Thermodynamics and Mechanical Laboratory*:—R. W. Angus, H. W. Tuttle.

Department 3, III Year; one 3 hour period per week, both terms.

Department 7, III Year; 2 hours per week, first term; 1½ hours per week, second term. Time to be in three-hour periods.

This laboratory course is designed to assist in a clearer understanding of thermodynamics, machine design and mechanics of machinery. The work in thermodynamics consists in the setting of slide valves, indicating engines measuring the brake horse-power, simple engine and boiler tests and the testing of gas and gasoline engines under various conditions. The mechanical laboratory work deals with the efficiency of belts as well as of several machines of simple construction. An examination of lubricating oils is also made by means of well-known methods. Experiments are also made on the balancing of reciprocating and rotating masses.

220. *Thermodynamics*:—R. W. Angus, E. A. Allcut.

Departments 3 and 7, IV Year; 2 hours per week; both terms.

This is a continuation of the introductory course, the subject being here treated from a general standpoint and the idea of entropy

and of the absolute scale of temperatures being introduced. The course includes the treatment of saturated and superheated vapours, gases, the flow of fluids, chimney and boiler efficiency and the theory of various engines and other appliances including air compressors, refrigerating machines, and injectors

221. *Thermodynamics*:—E. A. Allcut.

Departments 3, 7, IV Year; 1 hour per week, both terms.

Steam Power Plants. This course follows in logical order the courses on heat engines given in the second and third years. In it a study of the prime movers and auxiliary apparatus required in a power plant is made in such a manner as to indicate the proper choice of equipment under conditions of operation.

222. *Thermodynamics*:—R. W. Angus, H. W. Tuttle.

Departments 3 and 7, IV Year; about $9\frac{1}{2}$ hours per week, in 3 hour periods.

The work in this year is a continuation and extension of the work covered in the third year laboratory course. Careful tests are made of engines of various types, such as simple, tandem and cross-compound steam engines; steam turbines; refrigerating machines; injectors and steam pumps, etc., and an application is made of Hirn's analysis and the entropy diagram to the results obtained. A complete set of experiments is made on each machine and the result plotted so as to show clearly to the student the effect of various alterations in the adjustment of the engine on the resulting efficiency.

Several modern gas and gasoline engines and a gas producer give ample opportunity for the study of this type of engine, and facilities are provided for sampling the gas supply and exhaust.

Two experimental stacks and three boilers enable results to be obtained on boiler efficiency and chimney draft.

223. *Thermodynamics*:—E. A. Allcut.

Department 1, III Year; one hour per week, both terms; 2 hours per week laboratory, second term, time to be in 3 hour periods.

This course is especially designed to give the student a working knowledge of thermodynamics as applied to the perfect gas and steam, so that he will be able to understand clearly the action of air compressors, steam engines, etc. After deducing general principles, the efficiency of compressed air transmission and the relative merits of different types of compressors are discussed. The steam engine and boiler are also discussed.

224. *Thermodynamic Laboratory*:—R. W. Angus.
Department 6, III Year, Departments 2, 8, IV Year; 7 three-hour periods.
A course of experiments with steam and gas engines, compressed air, etc.
225. *Motive Power*:—R. W. Angus.
Department 1, Option e, IV Year; one hour per week, both terms.
A course of lectures covering boiler capacity, locomotive horse-power, tractive effort, etc., necessary to carry specified trains over different conditions of roadbed.

MACHINERY

230. *Theory of Mechanism*:—J. H. Parkin.
Departments 2, 3 and 7, II Year, lectures 2 hours per week; problems $1\frac{1}{2}$ hours per week, both terms.
This course of lectures treats of the elementary construction of machines and of the motions of the various parts. Methods of determining linear and angular velocities, methods for the solution of elementary problems involving forces and methods for the determination of the mechanical efficiency of machines are discussed. Velocity diagrams, crank effort and torque diagrams are plotted. Cams, toothed gearing and various types and applications of trains of gearing are considered.
Applications of the methods described are made to various machines including engines, machine tools, link motions, etc., and the lecture work is followed up by the solution of numerous examples in the drafting room.
Text Book:—Theory of Machines—Angus.
231. *Mechanics of Machinery*:—J. H. Parkin.
Departments 3 and 7, III Year; 1 hour per week, both terms.
This course is devoted to a consideration of the speed regulation and balancing of machines, and comprises lectures on the theory of various forms of governors, kinetic energy of machines and determination of speed fluctuations, the proper weight of fly-wheel, acceleration and inertia effects, and balancing.
The methods of analysis employed are those developed in course 230.
Text Book:—Theory of Machines—Angus.
232. *Elementary Machine Design*:—J. H. Parkin.
Departments 3, 6 and 7, II Year; 1 hour per week, both terms.
This is a preparatory course intended to familiarize the student with the different shop methods and processes, casting, forging, machining, etc., used in the production of machine parts, to enable him to make proper provision in the design of such parts to facilitate their production.

In addition, the various standards, machine and pipe threads, tapers, pipe fittings, etc., are described and mechanical drafting room practice explained.

Tolerances, limits, fits and gauges are discussed.

The design of simple machine fastenings and parts is taken up and examples worked out in the drafting room.

233. *Machine Design*:—J. H. Parkin.

Departments 3, 7 and 8, III Year; 2 hours per week, both terms.

Departments 6, IV Year; 1 hour per week, both terms.

The design work occupies 7 hours per week for Department 3, 4½ hours per week for Department 7 and 3 hours per week, second term only for Departments 3, 6 and 8. The periods are of not less than 2 hours and preferably 3 hours duration.

The lectures in this course deal with the design of various machine elements, including shafting, bearings (journal, thrust, ball and roller), belts, pulleys, flywheels, clutches, springs, machine frames, etc.

The problems worked out in the drafting room are planned to include the design of all of the above and with a view to developing the student's judgment and sense of proportion in design.

Text Book:—Machine Design—Leutwiler.

234. *Advanced Machine Design*:—J. H. Parkin.

Department 3, IV Year; lectures 1 hour per week, design 5 hours per week (one 2-hour and one 3-hour period), both terms.

The work of this course is devoted to the design of complete machines with the object of giving the student practice not only in the design of various details, but also in working in the various elements into a machine of smooth and harmonious design. The machines chosen as examples for design involve as many new machine elements as possible in order to broaden the training of the student.

Text Book:—Machine Design—Leutwiler.

MATHEMATICS

236. *Calculus*:—A. T. DeLury.

All Departments, I Year; 2 hours per week, each term.

Treatment of limits with special reference to those pertaining to exponentials and logarithms. Derivation of the fundamental formulae of the differential and integral calculus, with early application to simple problems concerning graphs, areas, volumes, lengths, etc.

237. *Calculus*:—S. Beatty and J. L. Synge.
Departments 1, 3, 6 and 7, II Year; 1 hour per week, both terms.
Continuation of course 236. The elementary theory reviewed and extended. Special attention to applications with problems in Engineering mostly in view.
238. *Analytical Geometry*:—I. R. Pounder
All Departments, I Year, 1 hour per week, first term, 2 hours per week, second term
The course in Elementary Analytical Geometry covers the more familiar propositions in connection with the straight line, circle, parabola, ellipse and hyperbola. The subject is treated so as to illustrate the general methods of analytical geometry.
239. *Trigonometry, Spherical*:—L. B. Stewart.
Department 1, II Year; 1 hour per week, first term.
A course of lectures includes the derivation of formulæ and their application to the solution of triangles and to practical problems.
Text Book:—Spherical Trigonometry—Todhunter and Leatham.
240. *Least Squares, Method of*:—L. B. Stewart.
Department 1, III Year; 1 hour per week, second term.
The course of lectures includes: The general principles of probability, the law of error, direct measurements of equal and different weights; mean square and probable errors; indirect measurements; conditioned observations, applications to empirical constants and formulæ, etc.
Text book:—Least Squares—Merriman.

METALLURGY

241. *Elementary Metallurgy*:—G. A. Guess.
Departments 1, 2, 3, 6 and 8, II Year; 1 hour per week, second term.
A course of about 12 lectures on early furnace metallurgy and present practice, with special reference to iron and steel.
242. *Fuels and Combustion*:—G. A. Guess.
Department 8, II Year; 1 hour per week, both terms.
A lecture course dealing with fuels, their use, preparation, calorific values and temperature of combustion.
243. *Metallurgy*:—G. A. Guess.
Departments 2, 6, III Year; 1 hour per week, both terms.
Fuels, temperature of combustion, specific heat, conductivity and problems thereon; chimneys, furnaces, refractories, outline of furnace metallurgy and hydro-metallurgy.

244. *Physical Metallurgy*:—O. W. Ellis.
Departments 2, 3, 6 and 7, III Year; 2 hours per week, second term.
The physical properties and structure of iron and steel and the more common alloys.
245. *Metallurgy*:—G. A. Guess, J. E. Toomer.
Department 8, III Year; 2 hours per week, first term; 1 hour per week, second term.
A lecture course on General Metallurgy accompanied by 3 hours laboratory per week, first term, and 6 hours per week second term.
246. *Physical Metallurgy*:—O. W. Ellis.
Department 8, III Year; 1 hour per week, both terms.
Changes of phase and of state, pyrometry, preparation of alloys, miscibility of metals, binary, ternary and complex alloys, the use of the microscope, with 3 hours laboratory per week, first term.
247. *Metallurgy*:—G. A. Guess, J. E. Toomer.
Departments 2 and 6, IV Year; 1 hour lecture per week, both terms; 6 hours laboratory per week, second term.
General metallurgy and metallurgical problems.
248. *Metallurgy Problems*:—G. A. Guess, J. E. Toomer.
Department 8, IV Year; 2 hours lecture and 4 hours laboratory, both terms.
Metallurgical book-keeping, balance sheets, thermal balance sheets, methods and processes.
249. *Metallurgy*:—G. A. Guess.
Department 8, IV Year; 1 hour per week, both terms.
Critical reading and discussion of papers and articles, describing metallurgical processes or dealing with plant arrangement and construction. Metallurgical flow sheets of typical plants.
250. *Physical Metallurgy*:—O. W. Ellis.
Department 8, IV Year; 1 hour lecture and 4 hours laboratory per week, both terms.
251. *Metallography*:—O. W. Ellis.
Department 2, IV Year.
A laboratory course of 3 hours per week, second term.
252. *Physical Metallurgy*:—O. W. Ellis.
Department 1, IV Year; 1 hour per week both terms.
The physical properties of metals and alloys used in Civil Engineering practice—specifications.

MINERALOGY

255. *Elementary Mineralogy*:—J. E. Thomson.
Department 2, I Year, 2 hours per week, first term.
After introducing the student to the chief chemical, physical, and crystallographic characteristics of minerals, the course becomes descriptive and deals with about one hundred of the minerals most important from the industrial or scientific point of view.
Text Book:—Study of Minerals—Rogers.
256. *Mineralogy*:—J. E. Thomson.
Department 6 and 8, I Year; 3 hours per week, one term.
Introduction to determination of minerals by inspection and physical tests.
Text Book:—Mineral Tables—Eakle.
257. *Primary Mineralogy*:—A. L. Parsons.
Department 1, II Year; 2 hours per week, first term.
A very brief introduction to the study of minerals and rocks
Text books:—Study of Minerals—Rogers; Hand-Book of Rocks—Kemp.
258. *Mineralogy*:—J. E. Thomson.
Department 2, I Year, 1 hour per week, first term; 3 hours per week, second term.
Determination of minerals by inspection and by means of physical tests; introduction to blow-pipe practice.
Text books:—Mineral Tables—Eakle; Determinative Mineralogy—Lewis.
259. *Mineralogy*:—A. L. Parsons, J. E. Thomson.
Department 1, II Year; 1 hour per week, first term; 2 hours per week, second term.
Determination of minerals by inspection and by means of physical tests; study of common rock types and their identification.
Text books:—Mineral Tables—Eakle; Handbook of Rocks—Kemp.
260. *Elementary Petrography*:—T. L. Walker.
Department 2, II Year; 1 hour per week.
A course of lectures and laboratory work introducing the student to the macroscopic study of rocks
Text-books:—Handbook of Rocks—Kemp.
261. *Mineralogy*:—J. E. Thomson.
Department 2, II Year; 2 hours per week.
Determination of minerals by means of the blow-pipe and physical properties.
Text books:—Mineral Tables—Eakle; Determinative Mineralogy—Lewis.

262. *General Petrography*:—A. L. Parsons.

Department 2, III Year, 1 hour per week.

Study of the chief rock-forming minerals and of some phases of petrography not covered in the course of the previous year.

Text Books:—Minerals in Rock-Sections—Luquer, Petrology for Students—Harker.

263. *Petrography*:—T. L. Walker.

Department 2, III Year, 2 hours per week, both terms.

Study of the chief rock-forming minerals, of rocks in thin sections and in hand specimens.

Text books:—Rocks and Rock Minerals—Pirsson; Minerals in Rock Sections—Luquer.

MODERN LANGUAGES

266. *French*:—J. H. Cameron, Miss J. C. Laing, L. A. Bibet.

Required in Department 4, First Year; 2 hours per week, both terms;
II and III Years, 1 hour per week, both terms.

First Year

(a) Practice in translation of a selected text bearing on some phase of architectural study (for example, History of Art, History of France, extracts from great French writers), this text being used as a basis for discussion on various aspects of the student's work.

(b) A course in Conversation to encourage the student to acquire a speaking knowledge of the language.

Second Year

(a) A reading course intended to introduce the student to the best literature on architectural subjects; prescribed text: *Guadet: Eléments et théorie de l'architecture*, to which may be added other reading selected from time to time.

(b) Conversation course continued from I Year.

Third Year

A continuation and development of the work of the II Year.

267. *German*:—G. H. Needler, B. Fairley.

Required in Department 6, all years; 1 hour per week, both terms.

An elementary course intended to train the student in the translation of scientific journals and treatises.

268. *Spanish*:—M. A. Buchanan.

Department 8, II Year; 1 hour per week, both terms.

An introduction to Spanish grammar, pronunciation and practice in reading Engineering Spanish.

SURVEYING

270. *Surveying*:—S. R. Crerar.

Departments 1, 2, 3, 7 and 8, I Year, 1 hour per week, both terms.
The lecture course includes the general principles; surveying with the chain, the compass and chain and the transit and chain, and level, the applications of trigonometry to inaccessible heights and distances, mensuration of surfaces, co-ordinate surveying, division of land, etc

Text books.—Plane Surveying—Tracy; Theory and Practice of Surveying—Johnston and Smith; Elementary Surveying—Breed and Hosmer.

271. *Field Work*:—S. R. Crerar, J. W. Melson.

Departments 1, 2, 3, 7 and 8, I Year, 5 hours per week, first term.
This course comprises testing chains; practice in chaining; a complete survey of a piece of land with the chain and transit; keeping of field notes, the use of the transit and compass in surveying closed figures and traverse lines and in ranging straight lines; plotting by latitudes and departures, and otherwise computing areas. Instrumental work with level.

272. *Surveying*.—W. M. Treadgold, E. W. Banting

Departments 1 and 2, II Year, 1 hour per week, both terms

This course of lectures takes up in detail, simple, reverse and compound curves as applied to railroad surveying. It also includes stadia, plane table and photographic surveying as applied to topographic work, and the main features of mine and hydrographic surveying.

Text books—Henck, Searles, Allen (Field books for Engineers) Theory and Practice of Surveying—Johnston and Smith; Surveying—Breed and Hosmer.

273. *Field Work*:—W. M. Treadgold, E. W. Banting.

Department 1, II Year; 9 hours per week, first term

Department 2, II Year; 6 hours per week, first term

This course of instruction embraces all adjustments of the transit and level, minor problems in triangulation and traversing—levelling and plane table practice.

274. *Surveying and Levelling*:—W. M. Treadgold.

Department 1, III Year; 1 hour per week, both terms.

This course of lectures takes up the work of the railroad engineer on construction, including profiles, cross sectioning, computation of volume of earthwork, overhaul, transition curves, laying out turnouts, frogs and switches, etc.

Also a discussion of trigonometric and barometric levelling.

Text books:—Field Engineering—Searles; Railroad Curves and Earthworks—Allen.

275. *Survey Camp*:—W. M. Treadgold, S. R. Crerar, E. W. Banting, J. W. Melson.

Departments 1 and 2, III Year.

This course includes:

- (a) Secondary Triangulation and Base Line Measurements.
- (b) Stadia, Plane Table and Boundary Traverses.
- (c) Highway and Railway Location.
- (d) Cross Sectioning and Computation of Earthwork.
- (e) Stream Gauging and Discharge Measurements.
- (f) Hydrographic Surveying.
- (g) Photographic and Micrometer work.
- (h) Stadia and Plane Table Topography.
- (i) Observations for Time, Azimuth and Latitude. This work is taken at Gull Lake Camp. See page 22.

276. *Railroad Location and Design*—W. M. Treadgold.

Department 1, Option "e," IV Year, 1 hour lecture per week, both terms, about 8 hours per week, both terms, in the drafting room.

This work will consist of an original survey for a railroad some one or two miles in length, the work to be carried out according to the most modern methods of location. Upon the completion of the field work, the complete survey will be plotted and a line adjusted to it. This will be staked out, profiles taken and the computation made of the earthwork and the preparation of overhaul diagram compiled for determination of haul and borrow. In the second term the design of track work, yards and practical problems will be taken up and special problems assigned.

ADDITIONAL FOURTH YEAR COURSES

280. *Sanitary Engineering*:—Peter Gillespie.

Department 1b, IV Year; 1 hour lecture per week, both terms; 3 hours laboratory, first term; and 6 hours, second term.

Consideration is given to the problems of water supply and sewerage disposal as viewed by the engineer. Some practice in the design of works from assumed data is afforded.

Reference Books:—Public Water Supplies—Turneure and Russell; American Sewerage Practice—Metcalf and Eddy, 3 vols.

281. *Highway Engineering*:—A. T. Laing.

Department 1b, IV Year; 1 hour lecture and 3 hours laboratory per week, both terms.

This course of instruction deals with the design, construction and maintenance of public highways and street pavements, also with the properties of the materials employed. Accompanying the course of lectures is a laboratory course dealing with the various bituminous and non-bituminous materials of construction.

282. *Municipal Seminar*.—P. Gillespie, A. T. Laing.

Department 1b, IV Year; 3 hours per week, both terms.

This time is devoted to reading, essay writing and discussion of problems relating to highways, town planning, sanitation and kindred subjects.

THESIS**285. *Thesis*.**

Required in all Departments, IV Year, with the exception of Department 4, Architectural Design Option.

Each student is required to prepare a thesis of between six thousand and seven thousand words on a subject approved by Council. See circular of information.

OUTLINE OF VACATION WORK**286. *Construction Notes*.**

II Year. See special circular of information.

The construction notes required consist of neat and complete dimensioned sketches in pencil of any structures, machines or plants which may be of interest. Any object chosen should be represented and dimensioned in such a manner that it could be completely constructed from the notes as the only available information (See page 20).

From students in Department 2, who have been actually engaged during the summer with Government or other approved geological survey parties, geological field notes will be accepted in lieu of construction notes.

MASTER OF APPLIED SCIENCE DEGREE

1. A candidate for the degree of Master of Applied Science (M.A.Sc.) shall hold the degree of Bachelor of Applied Science (B.A.Sc.) of this University, or a degree recognized as equivalent, granted by another University.
2. He shall spend not less than one academic year in attendance as a student, in the Faculty of Applied Science, on a course of study approved by the Council.
3. He shall present a satisfactory thesis on a subject approved by the Council.
4. He shall pass such examinations as the Council may decide.
5. He must register at the beginning of the academic year.

DEGREE OF MASTER OF ARCHITECTURE

1. A candidate for the degree of Master of Architecture (M.Arch.) shall hold the degree of Bachelor of Architecture (B.Arch.) or the degree of Bachelor of Applied Science in Architecture (B.A.Sc.) of this University or a degree recognized as equivalent, granted by another university.

2. He shall spend not less than one academic year in attendance as a student, in the Faculty of Applied Science, on a course of study approved by the Council.
3. He shall present a satisfactory thesis on a subject approved by the Council.
4. He shall pass such examinations as the Council may decide.
5. He must register at the beginning of the academic year.

PROFESSIONAL DEGREES

The attention of graduates is directed to the following regulations respecting professional degrees.

The following degrees have been established. Civil Engineer (C.E.), Mining Engineer (M.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), Chemical Engineer (Chem.E.), subject to the following regulations.

1. A candidate for one of the said degrees shall hold the diploma of the School of Practical Science or of the Faculty of Applied Science and Engineering or the degree of Bachelor of Applied Science.
2. He shall have spent at least three years after receiving the diploma or the degree in the actual practice of the branch of engineering wherein he is a candidate for a degree.
3. Intervals of non-employment or of employment in other branches of engineering shall not be included in the above three years. It shall not be necessary that the several periods requisite to make up the said three years be consecutive.
4. Satisfactory evidence shall be submitted to the University examiners as to the nature and length of the candidate's professional experience for the purpose of clauses 2 and 3.

The Examiners shall satisfy themselves by oral or written examinations in regard to the candidate's experience and competence.

5. The candidate shall prepare an original thesis on some engineering subject in the branch in which he wishes a degree, the said thesis to be accompanied by all necessary descriptions, details, drawings, bills of quantities, specifications and estimates.

The candidates may be required at the option of the Examiners to undergo an examination in the subject of this thesis.

6. Notice in writing shall be sent to the Secretary not later than the first day of February, informing him of the degree to which the candidate wishes to proceed and of the title of his proposed thesis for the approval of the Examiners.
7. The evidence under clause 4, and the thesis, with accompanying papers, described in clause 5, shall be sent to the Secretary not later than the first day of April.

8. The candidate shall be required to present himself for examination in the month of April at such time as may be arranged by the Examiners.
9. The fee for any one of the said degrees shall be twenty dollars, and shall be paid to the Bursar not later than the first day of April.
10. The thesis, drawings, and other papers submitted under clause 7 shall become the property of the University.
11. Nothing in this statute shall prevent any candidate from receiving more than one of the said degrees, provided he has the necessary qualifications for each degree. An interval of three years must elapse between the granting of any two degrees under this statute.

CERTIFICATE FOR HIGH SCHOOL ASSISTANT

The Calendar of the Ontario College of Education provides for the admission of the holder of a degree in Science to the Course for a High School Assistant's certificate. The regulation requires that the applicant shall submit with his application:

"His certificate of graduation as Bachelor or Master of Arts, Bachelor or Master of Science, Bachelor of Commerce, Bachelor of Agriculture, or Bachelor of Applied Science, from a British University, after the regular university course approved by the Minister of Education as to entrance requirements and as to content of the undergraduate courses. Each applicant must have Upper School or Honour Matriculation standing in English and History and Mathematics or the equivalent of such standing."

LABORATORY EQUIPMENT

THERMODYNAMIC AND MECHANICAL LABORATORY

The University in 1919 completed the erection of a large, well-equipped building for the accommodation of the steam, gas, mechanical and hydraulic laboratories. A more complete description of the laboratories has been published elsewhere, so that the present description is only intended to give the main features.

The part of the building set apart for thermodynamics and other mechanical work is the ground floor of a room 60 ft. x 155 ft. This room is lighted entirely from the roof in a very perfect way. A part of the space 40 ft. wide running the entire length of 155 feet is served by a 3 ton traveling crane and contains the following equipment:

50 h.p. Brown engine with separate jackets on both heads and barrel of cylinder.

Two-stage Rand air compressor having compound steam cylinders, each fitted with Meyer cut-off gear. The low pressure air cylinder has Corliss inlet gear.

30 h.p. high-speed Leonard tandem compound engine with shaft governor.

15 h.p. high-speed McEwan engine.

75 h.p. two-line compound Willans engine.

15 h.p. DeLaval turbine with special nozzles for condensing and non-condensing tests.

Two 15 h.p. Leonard engines with different types of valves, which are used for valve setting.

There are also two surface condensers with air pumps so arranged that any engine in the laboratory may be made to exhaust into the atmosphere through an open heater or into one of the condensers, the change from one arrangement to the other being accomplished in a few minutes without the aid of valves.

The laboratory further contains:

A 3 ton York refrigerating machine with tanks.

An Amsler transmission dynamometer.

Apparatus for testing injectors and steam pumps.

Numerous other pieces of apparatus and instruments.

The work on internal combustion engines and producers is performed on the following:

18 h.p. Canada suction gas producer.

14 h.p. National gas engine arranged for various compressions and points of ignition.

10 h.p. Fielding and Platt engine for city gas or coal oil, having various adjustments.

8 h.p. Otto gas engine.

6 h.p. marine gasoline engine.

Various accessories to above machines.

Steam for the laboratory is supplied by two 50 h.p. and one 100 h.p. Babcock and Wilcox boilers, the latter having an internal superheater. These boilers are located in a separate boiler room. They are used for experimental work only and are fitted up for testing. The gases pass up through two independent chimneys, and these have been arranged so that the draft and other conditions in the chimney at any point of its height may be examined.

In smaller work-rooms off the main laboratory are placed belt and oil testing machines, apparatus for testing the efficiency of gears and machines, and for experiments in the balancing of machinery.

HYDRAULIC LABORATORY

The hydraulic laboratory occupies two floors each 40 feet x 112 feet, which are well lighted by large windows on the side and end.

The water for the experimental work is pumped through the various pieces of apparatus from a well by means of two turbine pumping units, both of which are driven by a Belliss and Morcom compound engine of 125 h.p. running at a speed of 525 revs. per minute. Both engine and pumps have been installed with a view to using them in experimental work as well as for supply of water for other apparatus used in the laboratory.

The pumping units are capable of delivering one cubic foot of water per second against heads of 250 feet and 300 feet respectively. These units are designed and connected up so that they may be run in series giving the above discharge at 550 feet head, or they may be run in parallel giving double the discharge at a lower head. Each pumping unit consists of two two-stage pumps mounted on a common base and driven by a single pulley, and the construction and piping are such that each two-stage pump may be driven separately or that all may be driven at once, discharging separately one cubic foot per second at about 125 feet head through each of four independent pipes, or else the pumps may be run in series or in parallel. The scheme is thus well adapted to laboratory work, and under the heads used on reaction turbines about six cubic feet per second may be obtained.

The laboratory further contains a large vertical steel tank $5\frac{1}{2}$ feet diameter by 34 feet with arrangements for the attachment of nozzles and other mouthpieces, etc. Connections are also arranged for reaction turbines, the tank acting as a reservoir.

The discharge from the turbines or nozzles is measured in a weir tank nearly 6 feet wide and 21 feet long, containing a contracted weir $4\frac{1}{2}$ feet

wide. This weir may be calibrated by two weighing tanks, each having a capacity of about 240 cubic feet.

There are three reaction turbines and two impulse wheels all ready for experiment, the power being measured by brakes and the water by weir or orifices. Amongst the reaction turbines may be mentioned the one designed and built by Escher Wyss & Co., specially for the laboratory.

Smaller orifice and weir tanks, each about 3 x 3 x 12 feet with necessary measuring tanks, are arranged for instruction in coefficients of various kinds and practice with weirs and orifices.

A Venturi meter and other meters, also an hydraulic ram and similar devices are available for testing, and good facilities have been arranged for investigating friction and other properties of pipes and fire hose.

For special investigations on turbine and centrifugal pumps, other pumps in addition to those already described have been arranged.

The basement of the laboratory contains an open trough 5 feet wide, about 110 feet long, with a large weir at one end. It is intended to use this trough for experiments on the flow in open channels, for measurements of large discharges by means of the weir, and for experiments with current meters and Pitot tubes.

Numerous pieces of smaller apparatus, together with all instruments required, have also been provided, and the laboratory equipment is believed to be very complete.

AERONAUTIC EQUIPMENT

For the purpose of the scientific study of problems connected with aviation and the best design of aeroplanes, and also of all problems connected with the effect of wind pressure, a standard 4ft. N.P.L. type wind channel has been installed in the Hydraulic Laboratory and equipped with the latest form of balance and all necessary instruments.

There are available for laboratory demonstration and instruction purposes the following aeroplanes.—one S.E. 5A, one Avro Training and two J.N. 4 Curtis Training, all the gift of the Royal Air Force.

The laboratory also contains a number of aeroplane engines of various types, both rotary and stationary, and a number of models. These machines are available for inspection, and are of much help in studying the trend of development and design in the power plant of lightest weight.

DONATIONS TO THE THERMODYNAMIC AND HYDRAULIC LABORATORIES

The following donations to the equipment of the laboratories have been made through the kindness of those mentioned:

50 h.p. Wheeler Surface Condenser, presented by Mr. F. M. Wheeler, New York.

Blake Feed Pump, presented by the manufacturers.

6-inch New American Turbine, presented by Wm. Kennedy & Sons, Owen Sound, Ont.

Two Crown Water Meters, presented by the National Meter Co., New York, through Mr. M. Warnock, Toronto.

Rock Drill, presented by Sullivan Machinery Co., New York, through Mr. A. E. Blackwood, '95.

Marine Gasoline Engine, presented by Canadian Fairbanks Co., Montreal.

Two engines with different types of valve, presented by Messrs. E. Leonard & Sons, London, Ont.

Bundy trap from American Radiator Co., through Messrs. Russell & Gifford.

Dunham steam trap from C. A. Dunham Co.

Sectional models of valves from American Radiator Co.

Sectional model Mason Reducing Valve by Russell & Gifford.

Tanks, etc., by John Inglis Co.

Pressure Fan from Sheldons Ltd., Galt.

Model water turbine test runner from Wellman, Seaver Morgan Co., Cleveland, O.

In addition to the above, other firms have materially assisted by offering apparatus at or below cost price, among whom may be specially mentioned, The Canadian Rand Drill Co., Sherbrooke, Quebec.

The following machines are gifts from the Royal Air Force:

Liberty Aeroplane Motor 400 h.p.

200 B. h.p. Siddeley Deasey Aero Engine.

120 h.p. Beardmore Aero Engine.

Curtis Engine (Sectional).

Hispano Suiza Aero Engine.

80 h.p. Le Rhone Rotary Engine.

Clerget Rotary Engine.

Gnome Monosoupape Engine.

Admiralty Rotary Engine 150 h.p.

Models of Engines, etc., and numerous spare parts.

ENGINEERING PHYSICS LABORATORIES

The Optical Laboratories are equipped with 3 metre benches for class instruction in the fundamental theory of optical instruments. There is also an equipment consisting of one or more of the following: field glasses, telescopes, microscopes, spectrometers, comparators, focometer, sextant, polarizing devices, etc. Precision photometric equipment for both gas and electric light photometry is provided.

The Hydrostatic Laboratory is supplied with various types of hydrometers, hydrostatic balances, pumps, gauges, etc.

The Heat Laboratory is equipped with a full supply of calorimeters and accessories for determination of latent and specific heat, expansion apparatus, air thermometer, apparatus for verification of Boyle's law and pressure and boiling curve, and for determination of the absolute expansion of mercury, Callendar's apparatus for determination of the mechanical equivalent of heat. Calorimeter for the determination of the value of solid, liquid and gaseous fuels.

The Acoustical Laboratory is provided with sonometer, siren, forks ordinary and electric, Lissajous' and Melde's apparatus, organ pipes of various forms, manometric flame apparatus and a special equipment for work in architectural acoustics consisting of torsion chronograph, electro-pneumatic wind chest and standardized organ pipes and other accessories.

PHOTOGRAPHIC AND PROJECTION LABORATORIES

The Photographic Laboratory contains a supply of small cameras for the use of students, enlarging cameras, printers, blue printing machine and the necessary dark rooms.

This Department also carries on a photographic and projection service for all Faculties and Departments of the University. The equipment for this work consists of cameras for making photographs up to full plate size, enlargers, photo-micrographic apparatus, motion picture cameras for both gross and micro work, with the necessary developing and printing machines, a rotary blue print machine, a photostat, etc.

For projection service there is a motion picture projector and a number of projection lanterns for service in any University Building.

ELECTRICAL LABORATORIES

The Department of Electrical Engineering is located in the new Electrical Building. The accommodation includes quarters for staff, library, lecture rooms, laboratories, stores, and shop for repairs and construction.

Services.—Three-wire direct-current, 110 kw., from the University power house, automatically regulated at our end for constant voltage of desired value at our main switchboard. Three-phase, 60 cycles, 60 k.v.a., 115 volts, automatically regulated as to voltage and frequency. Three-phase, 25 cycles, 30 k.v.a., automatically regulated as to voltage and frequency. Every laboratory has all three services available at convenient places. There are three main boards, one for each floor. A system of special trunk lines between boards, and tree systems on each floor, enable easy arrangement of any desired special connections from any laboratory to any other.

Alternating current laboratory.—Area 26 x 110 ft., Service sets, 60 and 25 cycles, Tirrill regulators. Two 60-cycle and two 25-cycle, 15 k v.a. motor-generator sets; converters, various motors, squirrel cage and wound rotor induction types, repulsion and other single-phase types, unity power factor motor, polyphase motor with variable speed shunt characteristics and speed range of 4 to 1; transformers, single and three-phase; constant-current transformers with load of series arc lamps; lamp racks, reactors, condensers, brakes, etc.; oscillographs; indicating, graphic, recording, and demand meters of the best makes, all arranged to facilitate a very general line of experimental work.

Direct current laboratory.—40 kw. 230 to 115 volt motor generator set with Tirrill regulator for special tests. Numerous 5 kw. to 10 kw. motor-generator sets; shunt, series, compound motors; special interpole machines; loading racks, dynamometers, rheostats, numerous meters of first quality, etc., for any sort of study.

Measurements Laboratory—26 x 110 ft. Fitted with very flexible storage battery service which can be connected to any desired working place; d.c. three-wire service, also 60 and 25-cycle three-phase everywhere; galvanometers, resistance boxes, bridges, shunts, potentiometers, standard cells, bond testers, ductor, megger, apparatus for measuring low resistances, artificial lines for fault measurements, condensers, inductances, rails, cables, voltmeters, ammeters, wattmeters, dynamometers, etc., for general work on a great variety of measurements.

High voltage laboratory.—For various lines of study with voltages up to 200,000 volts. Flexible and safe provision for control.

Materials laboratories.—One specially fitted for general work on conducting materials, one for magnetic materials, one for dielectric materials.

Radio laboratory.—Adapted for the measurement of various quantities of interest in this work, including the strength of incoming signals. One single conductor aerial 1,200 ft. long, one multi-conductor aerial 120 ft. long.

Standardizing laboratories.—One students' calibration room for direct-current meters, another for alternating-current meters. A standards room, constant temperature, for master standards of voltage, resistance, current, power, etc.

Research laboratories.—Four rooms set apart for this work, in combination with facilities of the other laboratories.

Design laboratory—Arranged for calculation work on apparatus selected to illustrate essential principles.

CHEMICAL LABORATORIES

The Chemical laboratories are situated in the western half of the Chemistry and Mining building, on the first and second floors. The rooms are large and well lighted, and are supplied with the usual modern equipment.

The first and second year laboratory for qualitative work has accom-

modation for 112 students, each working space being supplied with water, gas and fume cupboard. The laboratory for quantitative analysis will accommodate 48 students, and is supplied with commodious fume cupboards and all necessary apparatus. A laboratory with working places for 36 is provided for the students engaged in the study of technical chemistry; it is equipped with appliances for the preparation and testing of chemical products. A laboratory for fourth year students with accommodation for eight workers has been fitted up. Each of these laboratories has its own balance room adjoining furnished with instruments from the best makers and adapted to the particular objects in view.

In addition there are rooms set apart for gas analysis, electrolytic analysis and a specially constructed fireproof laboratory for combustion, crucible and bomb furnaces. A calorimeter room has been equipped in the basement. Each of these laboratories is supplied with apparatus of the most approved design, providing excellent facilities for the prosecution of work in analytical and technical chemistry.

ELECTROCHEMICAL LABORATORIES

The Electrochemical laboratories, which are situated in the Chemistry and Mining building, are provided with special facilities for electrolytic work, including a large storage battery and electroplating dynamo with tanks as well as a good set of apparatus and electrical measuring instruments. The experimental work on electric furnaces is performed in two rooms specially equipped for this purpose with rheostats and switchboard connections to a 120 kw d.c. generator which supplies the current required.

ASSAYING LABORATORIES

These are situated in the west end of the basement in the Mining Building. They consist of five rooms, in addition to a library for study and an instructor's room. The East laboratory, 17 x 47 feet, and the West laboratory, 28 x 37 feet, are equipped with coal, oil and gas furnaces of various design. Each room has a fume cupboard, and the necessary equipment for the wet work in connection with assaying. Accommodation for twenty-four students at a time is provided, by individual work desks, each supplied with a balance, weights, fluxes, tools, drawers and lockers. Common to both laboratories is the balance room which has a cement table on brick piers to support the bead balances. These are illustrative of the types met in practice. Adjoining the West laboratory is a research room. A store-room adjoins the East laboratory where fluxes, clay ware and extra parts are kept. In the instructor's room are stored a large number of ores and bullion, obtained chiefly from typical mining districts and metallurgical plants, for class use. The preparation of ores is done in the Milling building, where crushers, pulverizers and sampling devices are available. A special laboratory sampler has been constructed for the purpose of giving samples for the student's assays, of indisputable similar-

ity, thus confining variations in results to the students' work. Other apparatus includes Guess-Haultain stationary electrolytic outfits, King rotating electrolytic apparatus, microscopes, optical resistances and thermocouple pyrometers, hand and foot cupel machines, grinding plates and screens.

MINING AND ORE DRESSING LABORATORY

A detached building 72 ft. x 70 ft. contains the Mining and Ore dressing equipment. It is heated, lighted and supplied with power from the central plant. It is divided into several parts, the larger being 72 ft x 53 ft. by 22 ft. high.

In this room is a 5-stamp battery with amalgamation plates, Wilfley table, Deister Flat-o table, Deister slime table, buddle, and classifiers of sufficient size to make tests on lots of from one to ten tons.

In addition are a set of small Wilfley tables, two 3-compartment jigs, a 2 ft. x 3 ft. tube mill, a small experimental tube mill, agitators, small classifiers and other testing apparatus for experimenting on the falling rates of ore particles, slime settling, surface tension and flotation processes. These include a Case machine, a K. and K. machine, a Ruth machine, a Callow cell, etc. Water is supplied from a tank in the roof. The machinery is all motor driven.

One portion of the room is devoted to rock drills of various types and other mining apparatus.

The other part of the building, 72 ft. x 17 ft., is divided into several rooms and contains a Hadfield's Gyratory Crusher, 16 in. x 12 in. Rolls, small crushers, screening machine, and sampling apparatus. The crushers are driven by a 30 h.p. motor in another room.

The other rooms contain a Wetherill magnetic separator, screen sets, a smithing equipment, workshop and storage for small lots of ore. The larger part of the ore supply is accommodated in bins outside the building.

The plant throughout is intended mainly for teaching and experimental purposes.

METALLURGICAL LABORATORY

This laboratory, in the East end of the Mining building, occupies about 3,600 sq. ft. on the basement floor and the same space immediately above on the ground floor. A stairway connects the two floors. The basement floor is divided into one large furnace room, a small hydrometallurgical room and two store-rooms. The furnace room contains a motor driven Connersville blower, several gas fired furnaces, two small blast furnaces, and a small 6 hearth Wedge roasting furnace. The larger electric furnaces of the Department of Electrochemistry are in this room. Some are supplied with direct current, others with A.C. from a 300 K.W. transformer. A system of flues, with hoods over all the furnaces, leads through

a Cottrell precipitator of the Rathbun type taking current at 50,000 volts, to a stack through which gases are pulled by a fan in the attic.

The hydro-metallurgical room in addition to apparatus for leaching tests contains several natural draft furnaces, a large Hoskins resistance furnace. There are also tanks for electrolytic refining and precipitation of metals.

The upper floor is divided into laboratories, store rooms and offices. The laboratories are: 1. Metallurgical analysis; 2. Heating treatment and pyrometry; 3. Grinding, polishing and etching; 4. Metallographic room with an adjoining dark room.

In the laboratory for metallurgical analysis the student is given some training in mill and smelter methods of analysis. It is well equipped for this work.

In the heat treatment and pyrometry laboratory are a number of tube furnaces of different sizes, a Leeds & Northrup transformation point indicator with furnace, double thermocouple and twin galvanometer, a Leeds & Northrup potentiometer pyrometer, a disappearing filament pyrometer, and many thermocouples for use with galvanometer or potentiometer. For grinding and polishing there is provided two motor driven emery wheels and a set of 3 motor driven horizontal polishing plates.

The metallographic room is equipped with one horizontal photo micrographic instrument made by Pellin Paris, one vertical photo micrographic apparatus by Bausch & Lomb and two other Bausch & Lomb metallographic microscopes.

There is also a Pellin instrument for the determination of critical points by photography according to the Saladin method.

MECHANICS OF MATERIALS LABORATORY

This laboratory is intended for the scientific and commercial testing of materials of construction such as iron, steel, timber, concrete and masonry.

It is supplied with the following:

An Emery 50-ton hydraulic machine, built by Wm. Sellers & Co., of Philadelphia, for making tests in tension and compression

A 100-ton screw power machine, built by Riehle Bros, Philadelphia. It is designed for making tests in tension, compression, shearing and cross-breaking, and will take in posts 12 feet long and beams up to 18 feet in length.

A Riehle 10-ton screw power universal testing machine.

A Riehle 50-ton screw power universal testing machine.

A 15-ton single lever-machine, built by J. Buckton & Co., Leeds, England.

A torsion machine, built by Tinius Olsen & Co., Philadelphia, for testing the strength and elasticity of shafting. This machine will twist shafts up to 16 feet in length and 2 inches in diameter.

A hand power torsion machine of simple mechanical construction, specially designed for the testing of short shafts of a maximum diameter of one inch.

A Riehle transverse testing machine of 5,000 pounds capacity, adapted to specimens up to 48 inches in length.

A Riehle compressometer, with spherical seat attachment for the adjustment of specimens having slightly non-parallel faces. This compressometer will receive specimens up to 10 inches in length.

An Olsen compression micrometer of standard type.

A 20,000 pound Olsen, hand power, wire testing machine, specially fitted for testing wooden columns with both fixed and pivoted ends

An Olsen combined impact tension and cantilever type testing machine.

An Olsen, 20,000 pound, hand power testing machine especially adapted for testing long columns.

An Olsen, 200 pound capacity, textile testing machine.

A Riehle abrasion cylinder, built to the standard required by the National Brickmaker's Association, adopted in 1901.

A Berry strain-gauge for spans of 3 inches and 8 inches.

A Nalder dividing engine. This may be used either for the precise division of scales or for the calibration of instruments intended for refined measurements.

A Brinell hardness testing machine.

A Shore scleroscope for testing hardness.

A large number of extensometers of the usual degree of precision. These include the Bauschinger, Martens, Unwin, Ames, Riehle, Johnson, Henning (recording) and other types. In addition there are the usual scales, microimeters, telescopes and reflectors, voltmeters for the determination of metallic contact, and such other appliances as are necessary in the making of precise measurements.

The shop is equipped with a number of high-class machine tools specially fitted for reducing the specimens to the requisite shapes and dimensions with a minimum of hand labour. It is also supplied with the necessary appliances for making ordinary repairs and for making apparatus for special experiment and original investigation.

HIGHWAY LABORATORY

ROAD METALS

This laboratory is equipped for carrying out investigations in the various materials employed in highway construction and maintenance, and comprises the following:

Page impact machine for testing the toughness of road materials.

Diamond core drill for preparing specimens for the toughness test.

Deval abrasion machine for testing the resistance to wear of road materials.

Cementation testing apparatus (Page type) for determining cementing properties of road materials.

Jaw crusher (Mitchell type) for crushing rock for various tests.

Power driven agitator with sieves for the mechanical analysis of sand, gravel and crushed rock.

Dorry hardness testing machine for determining the hardness of rock used in road construction.

BITUMENS

This laboratory is designed for the investigation of the physical rather than the chemical properties of bitumens used in road construction and maintenance. The equipment consists of an extractor for separating bitumens and aggregates, an Engler viscosimeter, a penetration apparatus as well as appliances for determining melting point, volatilization, specific gravity, ductility, etc.

LABORATORY OF ONTARIO BOARD OF HEALTH

Through the courtesy of the Secretary of the Provincial Board of Health for Ontario the facilities of the excellently equipped laboratory which the Board maintains at Stanley Park have, with certain conditions, been placed at the service of the University for the investigation of problems of interest to the sanitarian and the sanitary engineer. The equipment consists of various types of sewage sedimentation tank, sewage filter, sewage measuring devices, aerators, sterilizing appliances and a complete and representative plant intended for the filtration and sterilization of water by practically all known methods.

CEMENT TESTING LABORATORY

This laboratory is fitted with all the ordinary moulds, sieves, balances, burettes, steaming and drying tanks, tables, and other appliances necessary in making the usual physical tests of a Portland cement. It is also supplied with completely equipped cabinets for individual work. In addition there are the following:

A 2,000 lb. Riehle shot machine for tension.

A 2,000 lb. Fairbanks shot machine for tension.

A 1,000 lb. Olsen automatic shot machine fitted for tests in either tension or cross breaking.

An Olsen soapstone moist closet of modern design.

METROLOGICAL LABORATORY

The department of surveying and geodesy is provided with all the ordinary field instruments, such as transits, levels, compasses, micrometers, sextants, planimeters, plane tables, tapes, chains, etc., with which is carried on the instruction in practical field operations as detailed elsewhere.

A small laboratory is also established in the basement of the observatory described below, containing the necessary instruments for the refined measurements of geodetic surveying; as, a standard yard and metre, a Rogers 10-foot comparator, an invar base measuring apparatus, a Kater's pendulum with vacuum chamber, a level trier, micrometer microscopes, etc.

The geodetic observatory in connection with this department is used for the instruction of students of the Fourth Year in taking observations for time, latitude, longitude, and azimuth by the precise methods used in connection with a geodetic survey. It contains a 10-inch theodolite and zenith telescope by Troughton & Simms; an astronomical transit instrument and an 8-inch theodolite by Cooke; two electro-chronographs; a Howard astronomical clock; a Dent sidereal clock; a Dent sidereal break-circuit chronometer; a wireless receiving instrument; arithmometers, etc.

GEOLOGICAL AND MINERALOGICAL LABORATORIES

In the Chemistry and Mining building on College Street the University possesses a modern laboratory for Geology and Mineralogy.

Courses are given in laboratory work, especially in personal examination of type sets of rocks, fossils, minerals and crystal models. These laboratory exercises serve to illustrate the introductory didactic instruction.

For the encouragement of pure crystallography the laboratories are supplied with goniometers of the various types, crystal models, appliances for the cutting of oriented crystal sections and for the physical examination of the same. Practical petrography is carried on in rooms provided with type sets of rocks, both macroscopic and microscopic. Advanced students are taught to make thin sections of rocks and fossils and to study them microscopically. For students in Mining a laboratory course in the interpretation of geological maps and section is provided. Typical mining regions are studied in detail and an opportunity is afforded for the examination of specimens illustrating economic geology.

The laboratory for the preparation of thin sections of rocks, minerals and fossils is provided with electric diamond saws and grinding appliances for the various types of work incidental to the preparation of thin sections and museum material.

A room is also provided for advanced work in cartography and geological surveying.

The departments possess 28 petrological microscopes and 5 of other types, so that it is now possible to provide advanced students with instruments and sets of thin sections for their own especial use. The blowpipe laboratory contains 156 lockers, especially designed for apparatus for students.

LIBRARY

The University Library is contained in a building of its own, situated on the east side of the campus, that lies to the south of the Main Building. All students who have paid a library fee to the Bursar of the University are entitled to the privileges of the Library. Besides Reading Rooms the Building contains Departmental Studies, which may be used as study-rooms by honour students in the various branches and in which the Professors hold seminary courses, and private studies, intended for members of the Faculty or advanced students engaged in research work. The Library is opened at 8.45 every morning and remains open until 5.15 in the afternoon (6 p.m. during the second term). Books in ordinary use may not be taken out of the building during the daytime, but are lent for the night shortly before the hour of closing, to be returned the following morning before 10 o'clock. Books not in general demand may, on special application, be borrowed for a longer period. Failure to return a borrowed book at the proper time and other breaches of the regulations are punishable by fine or suspension from the privileges of the Library.

Rooms have been set apart in the Engineering and the Chemistry and Mining and Electrical buildings for the housing of such periodicals and other literature of the University Library as is of special interest to the students of this faculty.

ROYAL ONTARIO MUSEUM

ARCHAEOLOGY, GEOLOGY, MINERALOGY, PALAEOONTOLOGY, ZOOLOGY

Students of the University in all departments are recommended to avail themselves of the privileges of the Museum, which, although under separate control, is intimately connected with the work of the University.

The Museum is open on all week days from 10 a.m. to 5 p.m., and on Sundays from 2 p.m. to 5 p.m. The admission is free to the public on Tuesday, Thursday, Saturday and Sunday. On other days an admission fee of fifteen cents is charged.

By a resolution of the Board of Trustees all regular students of the University may be admitted free on all days of the week by presenting their card of registration.

UNIVERSITY OF TORONTO C.O.T.C.

The Toronto Contingent of the Canadian Officers Training Corps was organized in 1914, with a strength of 12 Companies. Its primary object is to provide students at Universities with a standardized measure of military training with a view to their qualifying for commissions in the country's auxiliary forces. C.O.T.C. Certificates of qualification exempt their holders from examination for commissioned rank on joining a militia unit. The facilities which are offered by the contingent for obtaining a

qualification while at the University, are intended to enable gentlemen to give personal service to their country with the least possible interference with their civil careers, to ensure that units have their establishments complete in the junior commissioned ranks, and to build up an adequate reserve of scientifically trained officers who have completed a period of consecutive and systematic military training, on academic lines, of a nature calculated to produce good officers.

The contingent provides the practical work for students taking the Military Studies option for the B.A.Sc. degree, as also physical exercise for students who may choose this as the form in which they will take their compulsory Physical Training. In addition to service in the corps for a University credit, students of any year or Faculty are trained in it to qualify for the Militia Department's officers' certificates. As the corps develops, after the set-back subsequent to its continuous activities during the war, it is hoped that it may be possible to form companies according to faculties and to so arrange the training of each that on leaving the University students will be qualified for commissions in that branch of the Militia to which their University course particularly applied.

The C.O.T.C. is a unit of the non-permanent Active Militia but forms no part of the organization for war and cannot be called out for active service as such. It is a training centre for the educated youth of the country from whom, as from all its sons, the Empire requires hard service but the hardest from those to whom most has been given.

The present Headquarters are at 184 College Street, and include armouries, members' reading room, library, and lecture room.

The Contingent's Staff is:

Officer Commanding Colonel W. R. Lang, late Gen. Staff, C.E.F.
Second in Command Major T. R. Loudon, late Can. Eng., C.E.F.
Adjutant Major H. H. Madill, late C.E.F.
Quartermaster Lieut. V. C. Kerrison, late C.A.S.C., C.E.F.
Paymaster Lieut. T. A. Reed
Musketry Officer
Contingent Sergeant-Major . . S-M. W. Hunt, late Royal Welsh Fusiliers.

The Athletic Association has full control over all athletic clubs using the name of the Faculty of Applied Science. The Executive Committee has power to suspend any one from the privileges of membership in the Association for any breach of its regulations, and controls the finances of all athletic clubs in the aforesaid Faculty. The annual membership fee of this Association is one dollar.

No other moneys are collected for the support of athletics in the Faculty of Applied Science without the sanction of the Executive Committee.

DEBATING CLUB

1921-1922

<i>Hon. Chairman</i>	Prof. C. R. Young
<i>Chairman</i>	D. W. Rosebrugh
<i>Secretary-Treasurer</i> ...	W. A. Osbourne
<i>Fourth Year Representative</i> ...	G. F. Bryant
<i>Third Year Representative</i> ...	J. A. Paget
<i>Second Year Representative</i>	W. A. Becker
<i>First Year Representative</i> ...	S. M. Jones
<i>I.C.D.U Representative</i>	G. H. Rowat

THE INDUSTRIAL CHEMICAL CLUB

OFFICERS FOR 1921-1922

<i>Hon. President</i>	Prof. J. W. Bain
<i>Hon. Vice-President</i>	Dr. M. C. Boswell
<i>Chairman</i>	A. E. H. Fair
<i>Vice-Chairman</i>	L. M. Price
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<i>Third Year Representative</i>	E. H. Carnahan
<i>Second Year Representative</i>	S. A. Rowland
<i>First Year Representative</i>	H. Trotter
<i>Secretary-Treasurer</i>	H. N. Baker
<i>Curator</i>	V. B. Lillie

The object of the Chemical Club is to promote the study of industrial chemistry and chemical engineering. Illustrated lectures, preceded by an informal dinner and a short musical programme, are held fortnightly, and on the following day an excursion is made to industrial concerns located in the city or vicinity.

MECHANICAL AND ELECTRICAL ENGINEERING CLUB

1921-1922

<i>Hon. Chairman</i>	Prof. R. W. Angus
<i>Hon. Vice-Chairman</i>	Prof. H. W. Price
<i>Chairman</i>	W. C. C. Duncan
<i>Vice-Chairman and Fourth Year Representative</i> . . .	W. L. Yack
<i>Secretary and Third Year Representative</i>	J. G. Ingles
<i>Treasurer and Second Year Representative</i>	G. M. Crossgrove
<i>Curator and First Year Representative</i>	W. R. Carruthers

The Club meets every Thursday during the academic year for the discussion of papers relating to mechanical and electrical engineering problems.

CIVIL ENGINEERING CLUB

1921-1922

<i>Hon. Chairman</i>	Prof. C. R. Young
<i>Chairman</i>	G. A. McClintock
<i>Vice-Chairman</i>	K. W. Irwin
<i>Secretary-Treasurer</i>	F. B. Boswell
<i>Fourth Year Representative</i>	M. D. Stewart
<i>Third Year Representative</i>	A. A. Rose
<i>Second Year Representative</i>	A. R. Chadwick
<i>First Year Representative</i>	D. Wyatt

The Club is addressed during the academic year by practising engineers on modern methods and problems in civil engineering.

MINING AND METALLURGICAL CLUB

1921-1922

<i>Hon. Chairman</i>	Prof. G. A. Guess
<i>Chairman</i>	J. Drybrugh
<i>Vice-Chairman and Fourth Year Representative</i> . . .	A. H. Stratford
<i>Secretary-Treasurer and Third Year Representative</i> . .	W. S. Maguire
<i>Second Year Representative</i>	J. C. Adamson
<i>First Year Representative</i>	H. G. G. Whitton
<i>Chairman Entertainment Committee</i>	F. J. Lyle

The Club is the official organization representing the undergraduates of Departments 2 and 8 of the Faculty of Applied Science.

The objects of the Club are to promote the spirit of good fellowship and mutual assistance amongst its members, both graduate and undergraduate, to provide a means of meeting together, and for the discussion of pertinent topics.

ARCHITECTURAL CLUB

1921-1922

<i>Hon. Chairman</i>	Prof. Adrian Berrington
<i>Chairman</i>	J. B. Helme
<i>Vice-Chairman</i>	M. A. Norcross
<i>Secretary</i>	P. A. Deacon
<i>Treasurer</i>	J. G. Magee
<i>Third Year Representative</i>	F. B. Brown
<i>Second Year Representative</i>	E. M. Coleman
<i>First Year Representative</i>	W. H. Steele

SKETCH CLUB

1921-1922

<i>Hon. President</i>	C. W. Jeffreys
<i>President</i>	J. L. VanCamp
<i>Vice-President</i>	J. G. Magee
<i>Secretary</i>	K. F. Noxon
<i>Treasurer</i>	G. R. Walton

FACULTY OF APPLIED SCIENCE

YOUNG MEN'S CHRISTIAN ASSOCIATION

The Y.M.C.A. of the Faculty of Applied Science was organized January 27th, 1905, and forms an integral part of the University of Toronto Y.M.C.A., which is a Federation of the Associations of the various Colleges and Faculties of the University. The object of the Association is to develop a true Christian manhood and to help the students in whatever way possible.

OFFICERS FOR 1921-1922

<i>Honorary President</i>	Prof. R. W. Angus
<i>President</i>	T. S. Glover
<i>Vice-President</i>	J. H. MacIntosh
<i>Secretary-Treasurer</i>	L. C. Jackson

UNIVERSITY OF TORONTO STUDENTS' ADMINISTRATIVE
COUNCIL, 1921-1922

REPRESENTATIVES FROM ENGINEERING SOCIETY

<i>President Engineering Society</i>	J. A. Langford
<i>Fourth Year Representative</i>	H. G. Thompson
<i>Third Year Representative</i>	F. A. Murphy
<i>Second Year Representative</i>	W. A. Osbourne
<i>First Year Representative</i>	H. L. Norman

THE ONTARIO COLLEGE OF EDUCATION

THE ONTARIO COLLEGE OF EDUCATION

GENERAL INFORMATION

The Ontario College of Education is the University's professional school of education. It trains candidates for diplomas and certificates as teachers and in particular for Provincial certificates as teachers of Art, Household Science, and Physical Culture, as High School Assistants and Specialists and as First Class Public School teachers. It also offers courses for the B.Paed., and D.Paed. degrees.

The buildings of the Ontario College of Education on Bloor Street contain well-equipped and well-ventilated lecture-rooms, laboratories, and reading-rooms for the accommodation of the students, and model classrooms for observation and practice-teaching. So far as necessary the observation and practice-teaching are supplemented by observation and practice-teaching in city schools in the neighbourhood.

While the chief exercises of the Ontario College of Education will be conducted in the buildings on Bloor Street, the students may use the University's library, gymnasium, athletic fields, etc., under such conditions as obtain with other students. They will also be admitted free to the Royal Ontario Museum, Bloor Street, from 9 a.m. to 5 p.m., on presentation of their registration cards. Thus, while they are subject to the same regulations, they enjoy all the privileges of the other University students.

UNIVERSITY REGULATIONS AS TO STUDENTS IN ATTENDANCE

The Students' Administrative Council has been entrusted by the Caput with supervision of the conduct of the students, and has power, subject to the approval of the Caput, to deal with violations of the regulations governing conduct.

Any student who may be convicted of having taken part in a parade or procession through the city which has not been authorized by the police authorities after application by the Executive of the Students' Administrative Council, will be severely disciplined.

All interference on the part of any student with the personal liberty of another by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence, is forbidden by the Caput.

A student who is under suspension, or who has been expelled from a College or from the University, will not be admitted to the University buildings or grounds.

The constitution of every University society or association of students in the College of Education and all amendments to any such constitution

must be submitted for approval to the Council of the College. . All programmes of such societies or associations must, before publication, receive the sanction of the Council of the College through the President. Permission to invite any person not a member of the faculty of the University to preside at or address a meeting of any society of association must be similarly obtained.

The name of the University is not to be used in connection with a publication of any kind without the permission of the Caput.

BOARD AND LODGING

Lodging and board are readily obtained in private boarding-houses within convenient distance of the University at a cost of from six dollars per week upwards for lodging with board; or, rooms may be rented at a cost of from one dollar and one-half per week upwards, and board obtained separately at reasonable rates.

The Secretary of the Ontario College of Education and the Secretary of the Christian Association of the University will forward accredited lists of boarding-houses on request.

COURSES

The following courses are offered:

I. Courses for (1) Interim Ordinary High School Assistants' and High School Specialists' certificates with Interim First Class Public School certificates or Elementary certificates in Physical Culture and Art, (2) Ordinary certificates as teachers of Household Science.

II. Courses for the B.Paed. and D.Paed. degrees.

III. Courses under the Board of Graduate Studies for the degrees of M.A. and Ph.D.

I.

COURSES FOR INTERIM ORDINARY HIGH SCHOOL ASSISTANTS' AND HIGH SCHOOL SPECIALISTS' CERTIFICATES WITH INTERIM FIRST CLASS PUBLIC SCHOOL CERTIFICATES OR ELEMENTARY CERTIFICATES IN PHYSICAL CULTURE AND ART, AND FOR ORDINARY CERTIFICATES AS TEACHERS OF HOUSEHOLD SCIENCE

SESSIONS

1. Enrolment in classes of the regular session will begin Monday, September 25th, at 10 a.m., and the instruction will begin September 26th, at 10 a.m. The Autumn Term will end Friday, December 22nd, at 12 noon, and the Winter Term will begin Tuesday, January 9th, at 9 a.m. The Spring Term will begin April 9th and end June 22nd.

DUTIES OF STUDENTS

2. (1) Regular attendance on the part of candidates for Provincial certificates is indispensable, except for such as are exempt from attendance under the regulations of the Department of Education, and for such as are experienced teachers and are permitted by the Dean to act, after Christmas, for not more than a total of one fortnight, as substitute teachers in the schools of Ontario. A return of the attendance of each student will be made to the Minister of Education at the close of the session.

(2) Students whose class-work shows them to be unduly deficient in scholarship, or whose conduct or progress is unsatisfactory, may be dismissed from attendance by the Dean at any time during the session.

(3) On the Dean's report to the Minister of Education as to the physical unfitness of a student for training for a Provincial certificate as a teacher, the Minister may require a special medical examination of such student, and, as a result thereof, may direct that his registration for such training be cancelled.

STUDENT SOCIETIES

3. Various religious, athletic, literary and dramatic associations are formed each session. For professional improvement all students are required to share in the activities of the literary and dramatic associations.

APPEALS

4. The answer papers of the final examinations of all unsuccessful candidates for Provincial certificates are re-read by the examiners, and

the results of the first reading reconsidered before a decision to reject is reached. Despite this fact any unsuccessful candidate may have his case considered a third time if within two weeks after the announcement of the results he lodges with the Minister of Education his appeal, with a statement of the grounds on which it is based, and with a fee of \$2.00. If made within the two weeks following, the fee will be \$5, and no appeal will be entertained thereafter. The fee will be refunded if the appeal is sustained.

COURSE FOR INTERIM ORDINARY HIGH SCHOOL CERTIFICATES.

PURPOSE

5. The Course for Interim Ordinary High School certificates prepares candidates therefor in the theory and art of organizing, governing, and instructing pupils in the Continuation Schools, Grades A and B, and in High Schools.

CONDITIONS OF ADMISSION

6. (1) Except as provided in (2) below, an applicant for admission to the course for an Interim Ordinary High School Assistant's certificate should make application not later than September 25th, to the Secretary of the Ontario College of Education on a form to be obtained from him and should submit with this application, on official forms also to be supplied by the Secretary:

(a) A certificate from the Deputy Registrar-General of Births, Parliament Buildings, Toronto, or an affidavit by one of the parents or other relative, or other person cognizant of the fact, that the applicant will be at least 20 years of age before October 1st, 1922.

(b) A certificate from a clergyman or other competent authority that he is of good moral character.

(c) A certificate from a duly qualified medical practitioner that for the purposes of this certificate he has made a careful examination of the applicant, and certifies as follows: (i) that he is free from heart disease or any other serious organic affection; (ii) that he is free from pulmonary affection, defective hearing, or seriously defective eyesight, or abnormal conditions of appearance which would interfere with his work as a teacher; and (iii) that in other respects also he is physically able for the work of a teacher as prescribed in the courses of study of the Ontario College of Education and of the Provincial Schools represented in the certificate for which he is a candidate. (See also Section 2 (3)).

(d) An agreement, if successful in obtaining a teacher's certificate, to teach thereon in Ontario, for at least the first year of his subsequent teaching experience.

NOTICE.—A violation of this agreement will render the certificate invalid.

(e) A certificate from a competent authority that he is a British subject.

(f) His certificate of graduation as Bachelor or Master of Arts, Bachelor or Master of Science, Bachelor of Commerce, Bachelor of Agriculture, or Bachelor of Applied Science, from a British university, after a regular

COURSE FOR INTERIM ORDINARY HIGH SCHOOL—*Cont.*

university course approved by the Minister of Education as to entrance requirements and as to content of the undergraduate courses. Each applicant must have Upper School or Honour Matriculation standing in English, History and Mathematics or the equivalent of such standing.

(2) An applicant for admission to this course who is not a candidate for the certificate of the Ontario Department of Education must comply with such conditions of admission as the Council of the Ontario College of Education may determine.

(3) Applications, by students not in attendance, for admission to the examinations should be made, at least one month before the examinations begin, to the Secretary of the Ontario College of Education, University of Toronto, on an official form to be obtained from the Secretary.

7. The annual fee for the Course for Interim Ordinary High School Assistants' certificates, which includes the library and examination fees, is \$25.00. The fee for the examination in the Course for Interim High School Assistants' certificates when the examination is taken by students not in attendance, will be \$15.00, or \$10.00 for Part I and \$5.00 for Part II, or in the case of partial examination, \$2.00 per subject. The fee for the University diploma will be \$2.00. A library deposit of \$1.00 will be required of all students, and a fee of \$8.00 for membership in Hart House of all male students. All students will also be required to become members of the respective Students' Administrative Councils.

TEXT-BOOKS

8. The text-books for the academic work are those prescribed for the Lower and Middle Schools of the High Schools of Ontario in each subject of the student's course.

For Observation and Practice-teaching students should supply themselves with copies of the text-books authorized for use in the above-named grades of schools. They should also supply themselves with the professional text-books whose titles appear in italics in the lists given below under each subject.

PROGRAMME OF STUDIES

9. (1) The course of training for Interim Ordinary High School Assistants' certificates consists of two parts as follows:

Part I: The Science of Education, School Management and Law, English, History, Geography, and (a) Latin, and French or German or Spanish or Greek or (b) Mathematics and Science.

Part II: Observation and Practice-teaching.

COURSE FOR INTERIM ORDINARY HIGH SCHOOL—*Cont*

(2) Students in attendance in the Interim Ordinary High School Assistants' course *may* also take the course in Vocal Music, and, if they possess the required academic qualifications, a Specialist's course, and *must* also take *either* the course for the First Class Public School certificate *or* the course for the Elementary certificate in Physical Culture *or* the course for the Elementary certificate in Art.

ORGANIZATION OF COURSE

10. (1) The following introductory work will be taken up at the beginning of the session.

(a) About 20 lectures upon the General Method of the Recitation in the Science of Education.

(b) Supervised Observation and Practice lessons (about 10 of each) in the different grades or forms of the High Schools.

(2) The instruction in the special methodology of the subjects of the High School courses will be accompanied by a review from the academic standpoint of such portions of each subject as may be necessary to determine the scholarship of the students and to illustrate the methods of instruction in that subject, dealing in particular with those parts of the course that are difficult of presentation.

(3) In the order and grouping of the courses due regard will be had to the character of each subject, to its correlations with other subjects, and to the logical development of the courses.

(4) So far as the conditions permit the programme of instruction will be organized on the basis of intensive study of a few subjects at a time.

(5) (a) The lectures will be distributed among the various prescribed subjects approximately as follows: The Science of Education 100, School Management and Law 50, English 90, History 20, Geography 15, Mathematics 80, Latin 50, French or German or Spanish or Greek 40, Science 40, Vocal Music 30.

(b) The courses in Mathematics, English, and Vocal Music will begin at the opening of the session and will continue until the close; those in the other subjects will be given, as far as practicable, in correlation with the Observation and Practice-teaching and will continue until completed.

(c) The Observation work will begin in the third week of the session, and the Practice-teaching in the fifth week. Exclusive of the introductory work, the programme of instruction will include for each student at least 50 Observation lessons and 30 Practice-teaching lessons. **These numbers may be increased to meet the needs of individual students.**

COURSE FOR INTERIM ORDINARY HIGH SCHOOL—*Cont.*

OBSERVATION AND PRACTICE-TEACHING

11. (1) The introductory course defined herein will be followed by systematic Observation and Practice-teaching, under the general supervision of the lecturers in the Ontario College of Education.

(2) (a) The Observation and Practice-teaching lessons for each student will be arranged to represent as far as practicable the work in all forms and grades of the Lower and Middle Schools of the High Schools. There will also be Observation in the Upper School of the High School.

(b) So far as practicable continuous Practice-teaching for several periods will be required, the students being wholly responsible for the management of the classes.

(3) Students will be notified of the subject and scope of the Observation lesson, and should prepare the lesson beforehand. After observing the lesson they will discuss it with the teacher or lecturer concerned.

(4) Students will be notified of the subject and the scope of the practice-teaching lesson by the teacher concerned, and will prepare a plan of each Practice-teaching lesson for submission to the teacher.

(5) (a) Model lessons will be taught by the teachers of the Practice-schools in accordance with the regular programme of said schools.

(b) The lecturers of the Ontario College of Education will develop the details of their subjects in the teaching order, and after each suitable step, will also themselves teach model lessons in special classes and in the practice schools

(6) (a) The necessary applications of the Science of Education and of Special Methods will be made systematically in connection with the Observation lessons and the Practice-teaching; so that the course may be taken up in terms of the pupil's mind and growth. Throughout the course the instructor in the Science of Education will himself illustrate by actual teaching the principles he has discussed in class.

(b) As far as practicable, the lecturers of the Ontario College of Education will be present at the Observation lessons and Practice-teaching of the students and will make jointly the criticism and valuation of their work

EXAMINATIONS

12. (1) For the purpose of determining the final standing of students the courses are classified into the following subjects:

Part I: Science of Education, School Management and Law, English, History, Mathematics, Geography, Latin, French, German, Spanish, Greek, Science, Vocal Music.

Part II: Observation, Practice-teaching.

COURSE FOR INTERIM ORDINARY HIGH SCHOOL—*Cont.*

(2) (a) The final standing of students in attendance will be determined by the combined results of the sessional records and the records of the final examinations in the subjects of Part I, and by the results of the records of the Observations and Practice-teaching of Part II.

(b) The sessional records represent oral and written exercises, practical work, practice in making examination papers, and in valuing the answer-papers of pupils, and such other tests as the staff may prescribe.

(c) At the close of each term there will be final examinations in such courses of Part I as have been completed in the term.

(d) At the examinations in Part I, each paper will contain questions in methodology, based upon the academic subjects, which will test the candidate's academic knowledge and, if his sessional records and his answers to these questions show that his academic knowledge is defective, he will be rejected on this ground alone.

(e) The maximum marks assigned to each subject in Part I will be 100. In all subjects except Vocal Music, a maximum of 40% of the marks will be assigned to the sessional records and 60% to the final written examinations. In Vocal Music a maximum of 50% of the marks will be assigned to the sessional records and 50% to the final written examinations.

(f) A maximum of 800 marks will be assigned to Practice-teaching and of 400 to Observation. The standing of the student in Observation and in Practice-teaching will be based upon his sessional records in the lessons following those which form part of the introductory courses.

CERTIFICATES

13. (1) A student who obtains 50% of the marks in each of the required subjects of Part I and 60% of the aggregate of the marks in each of the divisions of Part II, may, on the recommendation of the examiners, be awarded by the Minister of Education, an Interim Ordinary High School Assistant's certificate.

(2) A student who passes in Part II and fails in not more than two of the obligatory subjects of Part I will be exempted from further attendance.

(3) All other students who have failed to obtain the necessary final standing will be required to attend another session, beginning after the Christmas vacation.

(4) (a) (i) Candidates who are exempted from attendance at the Ontario College of Education, as provided in (2) above, may complete their standing for a certificate by re-writing, at one annual examination, or, separately, at different annual examinations, the examination in the subject or subjects in which they failed.

COURSE FOR INTERIM ORDINARY HIGH SCHOOL—*Cont.*

(ii) Candidates who failed at an examination under former Regulations and who were exempted from subsequent attendance at the Ontario College of Education will take, not later than a date determined in each case by the Minister of Education, the final examination papers as prescribed herein but their standing will be determined in the subjects as constituted under the Regulations in force when they first wrote.

(iii) Candidates who have been exempted by the Minister of Education from attendance at the Ontario College of Education on account of equivalent training in other provinces or countries, and who are required to write on the final examinations of the Ontario College of Education will take the prescribed final examinations in the subjects of Part I, and will also satisfy the examiners by teaching and other tests that they are competent for the work in the subjects covered by the certificate for which they are candidates.

(b) (i) The pass standard for candidates exempt from attendance will be the same as that for candidates in attendance but no allowance will be made for sessional work, if any, in the case of candidates not in attendance.

(ii) The final examinations in Vocal Music for students exempt from attendance, will include both a practical and a written test, 50 marks being assigned to the written test and 50 to the practical test.

(c) (i) Candidates exempt from attendance shall take their practical tests in Part II at such times during the session as may be agreed upon with the examiners. They shall take their examinations in the subjects of Part I in June on dates to be determined by the examiners or, in part, in June and, in part, at such times during the session as are set apart for the examination of students in attendance.

(ii) Students exempt from attendance may take their written examinations in Part I at Toronto, or at such local centres and under such conditions as may be determined by the Senate. They must, however, take their practical tests in Vocal Music, and in Teaching at Toronto.

(5) (a) Candidates who hold First Class Public School certificates, with the academic standing required for admission to the High School Assistants' Course and who submit certificates of at least one year's successful experience in a Continuation School from the Inspector or Inspectors under whom they have taught will be exempted from the attendance, excepting for the Spring Term, but will take the final examinations prescribed for Part I, and must also satisfy the examiners by practical tests that they are able to teach the subjects of the High School courses.

(b) Other candidates who hold a First or a Second Class certificate with the academic standing required for admission to the High School

COURSE FOR INTERIM ORDINARY HIGH SCHOOL—*Cont.*

Assistants' Course will be exempted from attendance during the Autumn Term, but will take the final examinations prescribed for Part I and must also satisfy the examiners by practical tests that they are able to teach the subjects of the High School courses.

DIPLOMAS

14. Successful candidates who are awarded Ordinary High School certificates by the Minister of Education and such other successful candidates as may be admitted to the course under section 6 (2), may be awarded University^s diplomas.

COURSES FOR HIGH SCHOOL SPECIALISTS'
CERTIFICATES.

PURPOSE

15. The courses for Interim High School Specialists' certificates prepare candidates therefor in the theory and art of organizing and instructing the pupils of the High Schools and Collegiate Institutes, in certain departments or subjects of the courses of said Schools.

CONDITIONS OF ADMISSION

16. (1) Applicants for admission to the courses for Interim High School Specialists' certificates, or to the final examinations for said certificates, must also be applicants for admission to the courses for Interim Ordinary High School Assistant's certificates, or must be applicants for admission to the examinations therefor without attendance throughout the session, or must already hold Ordinary High School Assistant's certificates. No candidate will be awarded an Interim High School Specialist's certificate or receive credit towards said certificate *before* he has been awarded an Interim Ordinary High School certificate.

(2) (a) A candidate for an Interim High School Specialist's certificate who is also a candidate for admission to the course for an Interim Ordinary High School Assistant's certificate, must comply with the conditions for admission prescribed for candidates for Interim Ordinary High School Assistants' certificates, and must also have his academic standing as a specialist approved by the Minister of Education before he will be admitted to said specialist course or to the examinations for the specialist certificate.

(b) A candidate for an Interim High School Specialist's certificate who holds an Ordinary High School Assistant's certificate, must have his academic standing as a specialist approved by the Minister of Education before he will be admitted to the examinations for the specialist certificate.

FEES

17. When an Interim High School Specialist Course is taken concurrently with the Course for an Interim Ordinary High School certificate, or when an Interim High School Specialist examination is taken concurrently with the examination for an Interim Ordinary High School certificate, there is no additional fee. The fee for a specialist course or examination, one or both, taken apart from the course or examination for an Interim Ordinary High School certificate, will be \$5.00 per course or per examination, one or both, as the case may be.

COURSES FOR HIGH SCHOOL SPECIALISTS—*Cont.*

COURSES

18. (1) Courses will be offered for Interim High School Specialists' certificates in Agriculture, Classics, Commerce, English and French, English and History, French and German, French and Spanish, Mathematics, Mathematics and Physics, Moderns and History, Science, and Household Science.

(2) Each specialist course will consist of at least two seminar-periods per week throughout the session, and of special Observation and Practice-teaching in the specialist department in which the candidate is an applicant for a certificate.

TEXT-BOOKS.

19. Students in the courses for High School Specialists' certificates will supply themselves with such special professional text-books as may be recommended by the instructors from the lists given under the details of each course. The other books and journals, whose names appear in these lists, may be consulted in the library of the Ontario College of Education

EXAMINATIONS

SUBJECTS AND STANDARDS

20. (1) Subject to the condition that no student may be awarded an Interim High School Specialist's certificate who does not already hold or is not also awarded an Interim Ordinary High School Assistant's certificate, the final standing of students in attendance in a specialist course will be determined by the records of the Observation and Practice-teaching in the department or subject concerned, and by the combined results of the sessional records and the records of the final examinations in the same department or subject. The sessional records represent oral and written exercises, practical work, practice in preparing examination papers, and in valuing the answer-papers of pupils, and such term work as the instructors may prescribe. The records of the final examinations will be based upon two examination papers taken in each department at the close of the session. The maximum marks represented in the Observation and Practice-teaching will be 100; in the sessional records 40; and in the final written examinations of the department or subject 60.

(2) The final standing of students not in attendance will be determined by the final written examinations and by teaching in the department concerned. For this purpose the maximum of marks in each case will be 100.

COURSES FOR HIGH SCHOOL SPECIALISTS—*Cont.*

CERTIFICATES

21. (1) On the recommendation of the examiners the Minister of Education may grant Interim High School Specialists' certificates to students in attendance who have fulfilled the conditions of the course for Interim Ordinary High School certificates, who in their specialist department have obtained (a) 60% of the aggregate of marks represented in the sessional records and the records of the final examinations and (b) 60% of the marks assigned to the Observation and the Practice-teaching.

(2) On the recommendation of the examiners the Minister of Education may grant Interim High School Specialists' certificates to students exempt from attendance who hold or are awarded Ordinary High School certificates, who hold also the necessary academic certificates as specialists, and who obtain 60% of the marks assigned to the written examinations and to the Practice-teaching, respectively, in the specialist course concerned.

(3) (a) For students not in attendance the written examinations in the courses for Interim High School Specialists' certificates will be held at the end of the session at Toronto or at such local centres and under such conditions as may be determined by the Senate.

(b) For students not in attendance the practical examinations will be held at Toronto, except in the case of those to whose competency the visiting Provincial Inspector certifies, after due notification to such Inspector by the candidate of the latter's intention to become an applicant for a specialist's certificate.

COURSES FOR FIRST CLASS PUBLIC SCHOOL CERTIFICATES.

PURPOSE

22. The course for First Class Public School certificates prepares candidates therefor in the theory and art of organizing, governing, and instructing the pupils of the Public, Separate, and Continuation Schools.

CONDITIONS OF ADMISSION

23. Applicants for admission to the course for Interim First Class Public School certificates or to the final examinations for said certificates must comply with the conditions of admission prescribed for candidates for Interim Ordinary High School Assistants' certificates. No candidate will be awarded an Interim First Class Public School certificate or receive credit towards said certificate *before* he has been awarded an Interim Ordinary High School Assistant's certificate.

FEES

24. When an Interim First Class Public School course is taken concurrently with the course for an Interim Ordinary High School certificate, or when the examination for an Interim First Class Public School certificate is taken concurrently with the examinations for an Interim Ordinary High School Assistant's certificate, there is no additional fee. The fee for a First Class Public School course or for the examinations of said course taken by one who already holds an Interim Ordinary High School Assistant's certificate will be \$5.00 for the course or for the examinations, one or both, as the case may be, or \$2.00 for each examination paper.

TEXT-BOOKS

25. The text-books for the academic work of the course for Interim First Class Public School certificates shall be those prescribed in each subject for the High, Public and Separate Schools. The text-books for the professional work shall be those whose titles are printed below in *italics*.

PROGRAMME OF STUDIES

26. (1) The course of training, which is supplementary to the course of training for Interim Ordinary High School certificates, includes the following subjects:

Part I: Primary Reading and Spelling, Composition (including stories and biographies from History); Arithmetic, Primary and Advanced,

COURSES FOR FIRST CLASS PUBLIC SCHOOL—*Cont.*

Algebra, Geometry; two of Latin, French, German or Spanish, Greek, Biology, Physics and Chemistry; Elementary Science, Nature Study, Agriculture and Horticulture, Writing, Music, Art, Hygiene, Physical Culture, Manual Training, Household Science (for women), as defined in the Ontario Normal School courses for Interim First Class Public School Certificates.

Part II: Observation and Practice-teaching—at least thirty observations and fifteen practice lessons—to be conducted under conditions defined in Ontario Normal School courses for Interim First Class Public School certificates.

(2) To the instruction in the subjects of the course will be allotted a maximum of two hundred lecture periods.

MODIFICATIONS OF COURSES

27. (1) Students who take the Latin, French, German or Spanish, Greek, or Music of the Interim Ordinary High School Assistant's course will be exempted from the corresponding subjects of the Interim First Class Public School course. Similarly those who take the Mathematics of the Interim Ordinary High School Assistant's course will be exempted from Advanced Arithmetic, Algebra and Geometry, and those who take Science from Elementary Science, Biology and Physics and Chemistry.

(2) Students who hold Provincial professional certificates in Physical Culture, Writing, Music, Art, Manual Training, or Household Science will be exempted from the examinations thereon but will take the Observations and Practice-teaching therefor.

(3) Candidates who hold Provincial Second Class Public School certificates and who take Latin and a second language as the option of the Interim Ordinary High School Assistants' course will be exempted from the instruction and examinations in all subjects of the Interim First Class Public School course except Advanced Arithmetic, Algebra and Geometry, Elementary Science, Agriculture and Horticulture, and Hygiene, while those who hold Provincial Second Class Public School certificates and take Mathematics and Science as the option will be exempted from the instruction and examination in all subjects of the Interim First Class Public School course except Agriculture and Horticulture, and Hygiene.

EXAMINATIONS

28. (1) Subject to the condition that no student may be awarded an Interim First Class Public School certificate who does not already hold, or is not also awarded an Interim Ordinary High School Assistant's certificate, the final standing of the students in attendance in the course for Interim First Class Public School certificates will be determined by the records of the Observation and Practice-teaching and by the combined results of

COURSES FOR FIRST CLASS PUBLIC SCHOOL—*Cont.*

the sessional records and the records of the final examinations in said course. Subject to the same condition, the final standing of candidates not in attendance will be determined by the records of the final written examinations and of practice-teaching.

(2) The examinations in the subjects of the course for Interim First Class Public School certificates shall be conducted, *pari passu*, in the terms and under the conditions set out in the Calendar of the course for Interim First Class Public School certificates of the Ontario Normal Schools.

CERTIFICATES

29. (1) (a) Subject to the conditions of Sec. 28 (1), a candidate who obtains 50% of the marks in each subject of the course for Interim First Class Public School certificates and 60% of the aggregate of the marks in each of Observation and Practice Teaching may, on the recommendation of the examiners, be awarded by the Minister of Education, an Interim First Class Public School certificate.

(b) Subject to the same conditions, a candidate who passes in Observation and Practice Teaching and fails in not more than three subjects and who does not receive less than 45% in any subject, may, on the recommendation of the examiners, be granted by the Minister an Interim Second Class Public School certificate.

(c) Subject to the same conditions, a candidate who passes in the Observation and Practice-teaching and fails in not more than three subjects may be exempted from further attendance and may complete his course for an Interim First Class Public School certificate by rewriting at one annual examination, or, separately, at different annual examinations, the examinations in the subject or subjects in which he failed.

(2) All candidates other than those referred to in (b) and (c) who have failed to obtain the necessary final standing will be required to attend another session, beginning after the Christmas vacation.

(3) Regulations 13, (4) (a) (i), (ii), (iii), (b) (i), (c) (i), (ii), which apply to candidates for Interim Ordinary High School Assistants' certificates who are exempt from attendance apply also, *pari passu*, to candidates for Interim First Class Public School certificates who are exempt from attendance.

COURSES FOR ELEMENTARY CERTIFICATES IN PHYSICAL CULTURE AND IN ART.

PURPOSE

30. The courses for the Elementary certificates in Physical Culture and Art prepare candidates therefor in the theory and art of organizing, governing, and instructing in Physical Culture and Art the pupils of Continuation and High Schools.

CONDITIONS OF ADMISSION

31. Students who have been admitted to the course for Interim Ordinary High School certificates will take also either the course for an Interim First Class Public School certificate or the course for the Elementary certificate in Physical Culture or the course for the Elementary certificate in Art

FEES

32. As the course for the Elementary certificate in Physical Culture or in Art may be an obligatory part of the course for the Interim Ordinary High School Assistant's certificate, no additional fee is required.

TEXT-BOOKS

33. Students in the courses for Elementary certificates in Physical Culture or Art will supply themselves with such text-books as may be recommended by the instructors from the lists given under the details of those subjects.

PROGRAMME OF STUDIES

34 (1) The subjects of the course for Elementary certificates in Physical Culture or in Art are to be found on pages 41-44.

(2) To the instruction in the subjects of the course in Physical Culture or in Art will be allotted a maximum of one hundred and twenty lecture periods.

EXAMINATIONS

35. (1) The final standing of candidates for the Elementary certificate in Physical Culture or in Art will be determined by the results of the sessional work, final practical tests, and final written examinations.

(2) (a) The following is the scheme of examinations and tests in Physical Culture:

COURSES FOR ELEMENTARY CERTIFICATES IN PHYSICAL
CULTURE AND ART--*Continued.**Written Examinations:*

Anatomy 100, Physiology and First Aid 100.

Sessional and Final Practical Tests:

FOR WOMEN: Calisthenics 200, Apparatus 50, Games and Military Drill 200, Swimming 50.

FOR MEN: Calisthenics 100, Apparatus 200, Indoor Games and Athletics 100, Swimming 50.

Fifty per cent. of the marks in each of the practical examinations will be assigned to the sessional and fifty per cent. to the final tests.

(b) The following is the scheme of examinations and tests in Art:

Sessional Work:

All sessional work must be completed satisfactorily before the other tests may be taken.

Practical Time Tests:

Drawing from common objects, in pencil, and in charcoal.

Drawing from nature.

Composition, simple illustration of a given subject.

Modelling of simple forms.

Design of conventionalized natural forms, lettering.

Colour painting still life in colour harmony.

Blackboard and memory drawing.

Written Tests:

Outlines of the history of art.

Theory of colour.

Design and applied art.

Elementary perspective.

Methods of teaching art in High and Continuation Schools.

Each subject and each paper shall be valued at 100.

CERTIFICATES

36. (1) On the recommendation of the examiners the Minister of Education may grant an Elementary certificate in Physical Culture or Art, as the case may be, to the student in the course for an Interim Ordinary High School certificate, provided that said student is awarded an Interim Ordinary High School certificate and obtains (a) in Physical Culture a minimum of 50% of the marks assigned to each subject of (i) the written and of (ii) the sessional and final practical tests respectively, or (b) in

COURSES FOR ELEMENTARY CERTIFICATES IN PHYSICAL
CULTURE AND ART—*Continued.*

Art a minimum of 50% of the marks assigned to each subject or paper of the practical and written tests, respectively.

(2) (a) No student will be awarded an Elementary certificate in Physical Culture or Art whose attendance or progress in any part of the course has been reported as unsatisfactory.

(b) The Dean will investigate the claims of the candidates who report themselves as unable for physical reasons to take the course in swimming, provided that such claims are presented to the instructor at the beginning of the session on a form and after a manner defined by the Minister of Education. If any candidate is exempted from the instruction in swimming by the Minister of Education that fact will be stated in his certificate.

(3) On the recommendation of the examiners, the Minister of Education may permit candidates in these courses who have completed the sessional work and taken all practical tests successfully but who have failed in one or more subjects of the written tests, to take the written tests without attending again or repeating their practical work or tests.

DETAILS OF COURSES.

FOR ORDINARY HIGH SCHOOL ASSISTANTS', HIGH SCHOOL SPECIALISTS', AND FIRST CLASS PUBLIC SCHOOL CERTIFICATES AND FOR ELEMENTARY CERTIFICATES IN PHYSICAL CULTURE AND ART.

37. The topics of the subjects of the courses for Interim Ordinary High School Assistants' and High School Specialists' certificates and for Elementary certificates in Physical Culture or Art are given below. For the courses for Interim First Class Public School certificates these topics and subjects must be supplemented by the topics and subjects set out in the Normal School courses for First Class Public School certificates.

THE SCIENCE OF EDUCATION.

38. *Introduction*.—Democracy and education; the special need for education in a democracy; teaching as a vocation, teacher-training in a modern educational system.

General Method.—The meaning of method and its psychological foundations; procedures common to various branches of teaching; types of lessons; notes of lessons.

Principles of Education.—The nature and aims of education; the function in education of the state, home, church, vocation, etc.; the curriculum, its nature, purpose, and selection; modern movements for the reform of education.

Educational Classics.—The study in class of selected portions of a few educational classics.

Educational Psychology.—The original nature of man, including a study of heredity, instinct, and capacities.

The Psychology of the learning process, including the study of such topics as habit, rates of learning, practice, fatigue, memory, reasoning.

The Psychology of typical high school branches; standard scales for their measurement.

The measurement of general intelligence; an examination of the Binet-Simon and other tests.

Child Study, its aims, methods, and results.

DETAILS OF COURSES.

Books of Reference

Ontario Normal School Manuals: Science of Education, History of Education.

Adams (Ed). *The New Teaching.*

Dewey: *Democracy and Education.*

Raymont. *Principles of Education.*

Ruediger: *Principles of Education.*

Sandiford: *Mental and Physical Life of School Children.*

Starch: *Educational Psychology.*

Waddle: *Introduction to Child Psychology.*

Woodrow: *Brightness and Dullness in Children.*

SCHOOL MANAGEMENT AND LAW.

39. School Management, School Organization, School Administration; aims and scope of each; relation of each to the teaching process.

Forms of educational control; Department of Education and its functions; school boards and their functions, relation of inspectors and principals to teachers, teachers to caretakers, trustees; finance of education; business administration.

Types of schools; functions of each type, primary, secondary, and higher schools; consolidated schools; day and evening schools; training schools; commercial, industrial, agricultural, and technical schools; schools for subnormal children, defectives, and delinquents.

School sites and surroundings; school buildings; construction, care-taking, heating, ventilation, lighting, sanitation, decoration, and equipment; apparatus; libraries, selection, cataloguing, use, text-books, authorization, use and abuse; free text-books; visual aids; medical and dental inspection; the detection of communicable diseases.

The teacher: characteristics, qualifications, appointment, tenure of office, promotion, improvement of status; superannuation of the teacher; duties of the teacher in relation to pupils, parents, and other citizens; qualifications and characteristics of the successful teacher; his code of ethics.

The pupil: privileges and duties; the health of the pupil; the formation of his habits; the teacher's responsibility; fatigue; moral training.

The first day in school; the importance of the teacher's work and attitude.

Organization: grading and classification; promotion; retardation; elimination; care of individual and of abnormal.

The recitation: assignment of home and seat work; oral and written exercises; how to study; questioning; treatment of answers.

Discipline: its scope; relation to methods of teaching; incentives; causes of disorder and inattention; methods of dealing with weaknesses and offences; penalties.

DETAILS OF COURSES.

Time-tables: purpose; principles involved in construction; typical daily programmes for various kinds of schools.

Records and reports: keeping registers, value and kinds of school records; forms of reports.

Examinations and other tests of progress.

School Law and Regulations and Public Health Acts and Regulations in so far as they refer to the duties of school boards, teachers and pupils.

Books of Reference:

Regulations and Courses of Study for the Public, High and Continuation Schools of Ontario.

Ontario Schools Acts, and Public Health Act.

Ontario Normal School Manuals: School Organization and Management, History of Education.

Bennett: School Efficiency.

Bagley: Class Management.

Landon: Principles and Practice of Teaching and School Management.

White: School Management.

ENGLISH.

40. (1) *Reading*: The importance of training in reading and in the principles of vocal expression to the pupil's ordinary speech and general culture.

The Reading Process: The factors involved in the process; the work of the eye in reading; word-recognition; the reading process as a specialized mode of the thought process; the relation of ideas to symbols; constant necessity for associating the printed symbol directly with the idea; the ideal conditions for the formation of this association.

The nature and function of silent reading; methods of conducting lessons in silent reading; the basis of expressive reading; the principles of vocal expression; the criticism of the pupil's reading; the place and limitations of imitative reading.

Practice; voice training; a class course in expressive reading; this work to be supplemented by practice in connection with the course in literature and with the activities of the Literary Society and the Dramatic Club.

Tests: Reading tests, e.g., "The Courtis Standard Test in Reading".

(2) *Literature*.—The place of literature in school courses; the principles followed in Ontario and elsewhere in arranging literature courses for schools; books suitable for intensive study in the various forms or grades of the schools; class treatment of such types of literature as the

DETAILS OF COURSES.

short poem, the long narrative poem, the play, the short story, and the novel; examinations in literature; supplementary reading, its importance, selection of books, testing of reading.

The course in literature includes a consideration of the problems connected with the teaching of silent and expressive reading and voice training.

(3) *Grammar*.—Introductory: The meaning of English grammar; its relation to speech; reasons for and against retaining it in elementary schools, reasons for deferring the formal study till Form IV; introductory work of Form III in connection with composition.

Consideration of the content and value of the course in grammar in Continuation and High Schools, the work to be covered in each of the Forms of the Lower School, use of a text-book in grammar; terminology; the use of definitions, treatment of false syntax; methods of conducting instruction in grammar discussed and illustrated in lessons upon subjects selected from topics difficult of presentation.

(4) *Composition*.—Introductory: The value of language training; present-day tendencies in the teaching of composition.

Methods: How habits of speaking and writing good English are formed; expression as a stage in the development of every lesson; the forms of expression that aid most the development of language powers; the effect of the teacher's example upon the pupils' language; relative value of reading and telling stories; the story method; value of reading and memorizing good literature; incidental work in language training.

The relation of oral and written composition; purpose and value of oral exercises; criticism of oral work, the dangers connected therewith and the means of avoiding them.

The principles to be kept in view in conducting exercises in written composition; the method of gathering, selecting, and arranging material; value of topical outlines; supervision and aid during writing; the place of home work in written composition, the value of formal linguistic exercises; correction of common errors; letter-writing and business-forms.

The mechanics of written composition: Sentence and paragraph structure; paragraph compositions; the use of capitals, punctuation marks, quotation marks, abbreviations, etc.

The principles to be followed in arranging a course in composition, work suited to the age and experience of the student; use of a text-book in composition; amount of written work to be demanded; criticism of essays; standards of marking; place of rhetoric in the school course; importance of oral composition; sources of material; class procedure.

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Books of Reference:

Ontario High School Grammar.

Ontario High School Composition.

Ontario High School Reader.

Public School Manual in Composition.

High School Manual in Composition.

Bolenius: The Teaching of Literature in Grammar Grades and the High School.

Carpenter, Baker and Scott: The Teaching of English.

Chubb. The Teaching of English.

Clark: How to Teach Reading in the Public School.

Fairchild. The Teaching of Poetry.

Huey: Psychology and Pedagogy of Reading.

HISTORY.

41 Stages in the study of history, the reflective stage; the tools of the history teacher; the High School course in history and civics, importance, content, methods of teaching. Illustration of methods in lessons on topics selected from the history prescribed for the Lower and Middle Schools. Students will be required to show their ability to gather historical material, and to present it in acceptable forms.

Books of Reference:

Public School Manual: History.

Bourne: The Teaching of History and Civics.

Dunn: Social Studies in Secondary Education.

Jarvis: The Teaching of History.

Johnson: The Teaching of History.

Macpherson: Visual Aids in the Teaching of History.

The Committee of Seven: The Study of History in Schools.

SEMINAR IN ENGLISH AND HISTORY.

42 *English:*

(a) A study of topics difficult of presentation in the English grammar, composition, and literature prescribed in the High School courses of study.

(b) A discussion of the organization of the course in English throughout the various Forms of the High School.

(c) A study of the methods of class-room procedure in the teaching of English, and of problems arising therefrom.

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Books of Reference:

Bolenius: Teaching Literature in the Grammar Grades and High Schools.

Carpenter, Baker and Scott: *The Teaching of English.*

Chubb: *The Teaching of English.*

Hosic: *Reorganization of English in Secondary Schools* (Bulletin No. 2, 1917, Bureau of Education).

Tomkinson: *The Teaching of English.*

Lamborn: *The Rudiments of Criticism.*

Articles in "The English Journal" and other journals.

HISTORY:

(a) A study of topics difficult of presentation in the prescribed history.

(b) A discussion of the courses in history that are adapted for pupils of various ages, and of the corresponding methods of teaching.

(c) A study of the method of research in history. The preparation of short monographs on assigned topics.

Books of Reference:

Johnson The Teaching of History.

Allen: *The Place of History in Education.*

Dunn: *Social Studies in Secondary Education* (Bulletin No. 28, 1916, Bureau of Education)

Keatinge: *Studies in the Teaching of History.*

Articles in "The Historical Outlook" and other journals.

Simpson. *Supervised Study in History.*

MATHEMATICS.

43. *Arithmetic.*—A brief study of present-day movements in Arithmetic; the fundamental changes in the purpose and method of teaching arithmetic, the content selected for teaching, and the relation of arithmetic to the life of the child.

The origin of number ; the various steps involved in the development of the number idea; the unit, its nature and use; the necessity for standard units; number, a ratio.

Methods: Analysis and synthesis, induction and deduction, illustrated and applied; the use of concrete material and apparatus; use of graphic methods; drill and devices to secure neatness, accuracy and rapidity of computation: importance, place, and treatment of mental arithmetic. Checking and verifying of results in arithmetic.

The value of problems; selection of problems; interest in problems for which the pupils themselves furnish the materials; where and how to assist pupils; type solutions; the unitary method, its merits and limitations; solutions by full analysis and by performing only necessary operations.

DETAILS OF COURSES.

Fractions: (a) vulgar, different interpretations; numeration and notation; operations; conditions under which these operations can be performed; measures and multiples; (b) decimal; as special fractions and as complements of common notation; correspondence of methods with those of integers. Approximations.

Compound rules; tables of weights and measures; reduction; operations.

The metric system, when and how it should be taught.

Square root by factoring and by the formal method, illustrated geometrically and algebraically.

Commercial arithmetic: how to make topics like discount, stocks, exchange, etc., concrete to the pupil; use of tables in calculating interest, discount, taxes, etc.; commercial and business forms.

Mensuration; the application of arithmetic to space relations; theoretical and practical methods of obtaining formulae; practical problems to show the use of these formulae; the necessity of models in teaching mensuration.

Algebra.—Arithmetical algebra; transition from arithmetic to algebra; generalization of language and of method; the introduction and defining of symbols; the negative quantity; the simple rules; the distributive law, commutative law, index law, sign rule; the equation and its place in algebra; factoring, highest common factor and lowest common multiple; use of detached co-efficients; classes of simple equations, symmetry and its applications in elementary algebra; square root; method of dealing with problems and the object to be kept in view in their solution; verifying and checking results; correlation of algebra and geometry; graphical methods of illustrating formulae and of interpreting the roots of equations.

The theory of fractional and negative indices; surds and surd equations; quadratic equations of one and two unknowns; theory of quadratics; simple ratio and proportion.

Geometry.—Practical geometry to precede the theoretical; use of instruments; paper folding; necessity for accuracy; distinction between practical geometry and geometrical drawing, practical problems in the solution of triangles and in measuring heights and distances; limitations of appeals to the concrete; value of experimental proofs; need of clear and definite conceptions of the fundamental truths; the place of the definitions and axioms; when and how they should be introduced; the proposition; homework and class-work; the analytic-synthetic method of dealing with propositions and deductions; the comparative values of propositions and deductions; the comparative values of propositions and exercises; how to get pupils to work original exercises; necessity of original work from the beginning of theoretical geometry; the indirect method of demonstration; methods of class teaching; importance of note-books for pupils' exercises; the grouping and relating of propositions; practical applications; algebraic solutions; Euclid's method compared with modern methods; method of

DETAILS OF COURSES.

teaching the more important propositions and exercises in Book I of the authorized text.

Books of Reference:

Public School Manual in Arithmetic.

McMurry: Special Method in Arithmetic.

Schultze: The Teaching of Secondary Mathematics.

Smith: The Teaching of Elementary Mathematics.

Suzzallo: The Teaching of Primary Arithmetic.

Young: The Teaching of Mathematics.

SEMINAR IN MATHEMATICS.

44. The seminar in Mathematics will discuss methods in Trigonometry and the more advanced parts of Algebra and Geometry; the order of presenting the parts of these subjects so as to secure the most logical and impressive relation among the parts; the relations of the subjects themselves; the place of the teacher in dealing with more mature minds; the history and development of such special topics as the algebraic equation, the vulgar and decimal fraction, loci, maxima and minima, theory of parallel lines, etc.; examinations in mathematics, their purpose, when they should be held, the character of the paper, methods of marking, etc.

Books of Reference:

Howell: A Foundation Study in the Pedagogy of Arithmetic.

Fink: A Brief History of Mathematics.

Schultze: The Teaching of Secondary Mathematics.

Articles in "School Science and Mathematics".

GEOGRAPHY.

45. Scope and Method of Geography: Relationship to other subjects of the courses of study; general methods of presentation with advantages and disadvantages of each method.

Regional geography: Maps; different kinds, importance of each; map drawing; use of pictures, globes and other visual aids; use of text-books, readers, reference books, methods of treatment of typical regions.

Commercial Geography: Factors determining commerce, chief commercial commodities, geographical factors determining their production and distribution, relation of physical features to commerce; commercial geography of selected regions; methods of treatment of typical problems.

Physical Geography; Relation of physical to commercial and regional geography; importance of experimental work; use of such aids as contour, isobar, isotherm, and weather maps; interpretation of the physical geography of Ontario. A discussion of the method of treatment of topics difficult of presentation from the physical geography prescribed for the High Schools of Ontario.

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Books of Reference:

Public School Manual: Geography.

Wallis: *The Teaching of Geography.*

Chisholm: *Handbook of Commercial Geography.*

Lake: *Physical Geography.*

Andrew: *A Text-book of Geography.*

SCIENCE.

46. The following are the main topics of the course:

A. Scope and value of the natural sciences; meaning of science and scientific method; educational value of science; inductive and deductive methods of investigation.

Experimental work; how conducted, how recorded; manipulation of apparatus; glass-working; making of simple apparatus; classroom discussion, its purpose, method, and relation to the experimental work; the use of text-books; note-books, method of inspection, drawing; reference books, most suitable books in each subject for the library; supplementary reading; methods in biology, physics, and chemistry of the Lower School, illustrated in lessons upon subjects difficult of presentation.

B. Laboratory equipment for the teaching of Elementary Science, and of Physics, Chemistry, and Biology; methods of demonstration; use of technical terms; theories, facts, scientific laws; text-books and reference books.

Chemistry: Order of treatment; introductory work. Methods of conducting instruction in Chemistry will be discussed, and illustrated in lessons upon subjects selected from such topics as the following: chemical laws and theories; valency; formulae and equations; nomenclature; qualitative and quantitative experiments; chemical arithmetic; the elements, with sodium and chlorine as types.

Physics: Methods of conducting instruction in the more difficult parts of the courses in heat, light, sound, magnetism, electricity, and mechanics will be discussed and illustrated in lessons upon subjects selected from such topics as the following: specific gravity, properties of liquids and gases, machines, temperature, specific heat, laws of reflection, images in mirrors and lenses, laws of vibrating strings with problems, interference of sounds, lines of magnetic force, relation between statical and current electricity, practical applications of electricity.

Biology: Dissection; experiments with plants; the microscope; aquaria and terraria; school museums; plant and animal ecology. Methods of

DETAILS OF COURSES.

conducting instruction in biology will be discussed and illustrated in lessons upon subjects selected from such topics as the following: relation of structure to function, animal and plant types as the grasshopper, frog, hepatica, fern. This discussion will assume a practical acquaintance on the part of the student with the common plants and animals of Ontario.

Books of Reference:

High School Manual: Suggestions for Teachers of Science.

Burlend: First Course in Zoology.

Gregory and Simmons: Lessons in Science.

Twiss: Principles of Science Teaching.

Lloyd and Bigelow: The Teaching of Biology.

Smith and Hall: The Teaching of Chemistry and Physics.

Woodhead. The Study of Plants.

SEMINAR IN SCIENCE.

47. Manipulation: Practice with apparatus used in High School demonstrations; preparation of illustrative charts; the projection lantern; photography; preparation of lantern slides; care of aquaria and vivaria; growth of plants for experiments in vegetable physiology; collection and preservation of botanical and zoological material for Upper School work.

Equipment: Laboratory accommodation; arrangement of laboratories; lighting and ventilation; arrangement and structure of benches and other furniture; care and purchase of apparatus; chemicals and minerals, most suitable kinds, method of preparation and storage; reference works and periodicals in science for the High School library.

Methods of treating topics difficult of presentation in physical geography, physics, chemistry, biology, mineralogy and geology discussed, and illustrated in lessons selected from the following topics: geological history of the Great Lakes in its relation to the physical features of Ontario; geographical significance of minerals and rocks; protection and colour of animals; Mendelism; plants in relation to insects; form and colour of flowers; parasitic and saprophytic plants; insectivorous plants; laws of combination in chemistry; symbols, formulae, and equations; valency; atomic and molecular theories; Boyle's Law; Charles' Law; electron theory of matter; absolute temperature; relation of acceleration, momentum, force, and energy; surface tension; flow of liquids.

Books of Reference:

Davis: Natural History of Animals.

Ganong: The Teaching Botanist.

Ganot: Text-book in Physics.

Kerner: Natural History of Plants.

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Books of Reference:—Continued.

Laboratory Accommodation, Pamphlet No. 9 of Department of Education of Ontario.

Mann: The Teaching of Physics.

Mellor: Modern Inorganic Chemistry.

SEMINAR IN AGRICULTURE.

48. The history of agricultural education, especially in Denmark, the United States and Canada, methods of conducting laboratory and plot work; relation of the course in agriculture to vocational education; laboratory work.

Books of Reference:

Barkett, Stevens and Hill: Agriculture for Beginners.

Manual of Elementary Agriculture and Horticulture.

Marshall: Microbiology.

Plumb: Types and Breeds of Farm Animals.

Robinson: Principles and Practices of Poultry Culture.

Sanderson: Insects of Farm, Garden and Orchard.

Snydes: Soils and Fertilizers.

Warren: Elements of Agriculture.

Waters: The Essentials of Agriculture; Farm Management.

Note: Candidates for Specialists' certificates in Agriculture will take also the course in Science for High School Assistants.

CLASSICS (LATIN AND GREEK).

49. The relation of method in teaching Latin or Greek to linguistic method in general; the effect of the object of teaching Latin or Greek upon the method in various departments, such as oral reading, grammar, translation, sight reading, and the literary or historical content; illustration of methods in typical lessons.

Pronunciation; oral reading, sight reading, and English translation as prescribed for Normal Entrance or Pass Matriculation; general principles of word-structure and sentence-structure; word order; methods of teaching the parts of a lesson; the direct method; topics of inflection and syntax as found in the Latin and Greek Books; special emphasis on difficult topics.

Books of Reference:

Bennett: The Teaching of Latin.

Chickering and Hoadley: Beginner's Latin by the Direct Method.

Crawford: On Pronouncing Latin.

Hale: The Art of Reading Latin.

Westaway: Quantity and Accent in the Pronunciation of Latin.

Bristol: The Teaching of Greek.

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Thompson: Homeric Grammar.

Goodwin: Greek Grammar.

Goodell: Greek Grammar.

Arnold: On Translating Homer.

SEMINAR IN CLASSICS.

50. In the seminar in Classics, topics are chosen germane to the teaching of Horace, Vergil, Cicero, Caesar, Xenophon, and continuous Latin prose composition. The following list will show the nature of the topics for discussion:

The teaching of Horatian metres; the poetic art of Horace; the translating of Horace into English prose; the use of metrical versions; certain Asclepiadean odes; the national odes; Horace's treatment of religion, death, friendship, and fortune; the selection of "fine lines"; the complete teaching of an ode of Horace; the appropriate commentary.

The teaching of Vergil in an honour class; the difficulties in translating Cicero; what T. Rice Holmes has done for the teaching of Caesar; the sequence of tenses in Caesar's indirect discourse; the teaching of Latin prose composition; the teaching of Xenophon in an honour class; the classical library.

The direct method in Latin and Greek.

Books of Reference:

Bennett and Bristol: The Teaching of Latin and Greek.

Johnson: Pamphlets on the Teaching of Caesar and Vergil.

Hale: Pamphlets on the Art of Reading Latin.

Articles in the "Classical Journal".

FRENCH, GERMAN, OR SPANISH

51. Introductory: Importance of the study of a modern language; aims of the study.

Study of Methods: A comparison of methods in view of the present conditions in the schools, *e g.*, the age and attainments of pupils, the size of classes, allotment of time, text-books in use, regulations governing the teacher; illustrative lessons.

Pronunciation: Study of phonetics; theory and practice.

Elementary Classes: Classes conducted without a text-book; conversation lessons; how to make use of the objects of the classroom, pictures and drawings; unison work; variety and interest; dictation; note-books and their correction, picture lessons; necessity for thorough drill.

Grammar: Inductive and deductive teaching; grammatical rules and their value; special illustrative lessons on essentials.

Translation into English: Importance; aims; methods of conducting the recitation. Special consideration of selected passages from the Reader and the Authors prescribed for Junior Matriculation.

DETAILS OF COURSES.

Composition to be based on models; free reproduction; original essays; writing of letters; methods of correction; training in the use of the dictionary.

Books of Reference:

- Bagster-Collins: The Teaching of German.
- Bahlsen. Teaching of Foreign Languages.
- Dumville: French Pronunciation.
- Heath: Report of the Committee of Twelve.
- Jespersen: How to Teach a Foreign Language.
- Palmer: Scientific Study and Teaching of Languages.
- Savory and Jones: Sounds of the French Language.
- Vietor: German Pronunciation.

SEMINAR IN FRENCH AND GERMAN.

52. The seminar will lay stress upon the consideration of the value, aims, and methods of linguistic training; the relation of linguistic training to literary culture; history of methods formerly employed in the teaching of modern languages in the secondary schools of France, Germany, Great Britain, and the United States; the necessity for better methods in Ontario; the Direct Method illustrated in the class-room; a study of French life, manners, and institutions; the importance of pronunciation; the value and use of phonetic symbols, use of phonetic charts and wall-pictures; typical lessons in advanced grammar, conversation, translation, sight reading, prose composition; free reproduction exercises, dictation, and audition; writing and correction of passages in French composition; consideration of books helpful to the teacher; the extent of the courses in the Upper School; writing essays on allotted subjects.

Books of Reference:

- Bagster-Collins: German in Secondary Schools.
- Bahlsen: Teaching of Modern Languages.
- Brebner: Method of Teaching Modern Languages in Germany.
- Breul: Teaching of Modern Languages.
- Dumville: French Pronunciation.
- Geddes: French Pronunciation.
- Gouin: The Teaching and Studying of Languages.
- Gouris: Teaching by the Direct Method.
- Jespersen: How to Teach a Foreign Language.
- Kittson: Theory and Practice of Language Teaching.
- Rippmann: Elements of Phonetics.
- Savory and Jones: Sounds of the French Language.
- Sweet: Practical Study of Languages.
- Walter: Zur Methodik des neu sprachlichen Unterrichts.

DETAILS OF COURSES.

VOCAL MUSIC.

53. Tune: All intervals of the Major Diatonic Scale, both from the Tonic Sol-fa and staff, the relative minor; transition.

Time: Whole pulse, continued pulse, silent pulse, and pulse divided into halves, quarters, and thirds with the various combinations of these in simple and compound duple, quadruple, and triple times. All the above in both the Tonic Sol-fa and staff notations.

Ear-training in Time and Tune: Recognition of rhythm and tone, of short musical phrases when played or sung, and their expression in either notation.

Voice-culture: Breath-control, tone production, vowel-formation, enunciation of consonants, correct intonation, blending of registers, and general training for quality, range, and flexibility.

Sight-singing: Singing from pointing on modulator or staff. Singing at sight easy passages containing the varieties of time and tune mentioned above.

Songs: The study of songs, in one or two parts, suited to the requirements of pupils in various school grades; with special attention to accent, enunciation, phrasing, quality of tone and expression.

Notation: Elements of notation, both Tonic Sol-fa and staff; the formation of the major and minor diatonic scales; elements of modulation and transposition.

Vocal Physiology: Anatomy of lungs, larynx, and resonating cavities; comparison of abdominal, intercostal and clavicular methods of breathing; action of vocal chords in production of tone and of the various vocal registers; influence of resonating cavities upon quality of tone and vowel; care of voice in speaking and singing.

Methods: The grading of school music to suit the development of the pupils and the methods of teaching both systems.

Books of Reference:

Crangan: The Educational Music Course.

Crangan: Teacher's Handbook of Tonic Sol-fa System.

Curwen: The Standard Course.

Curwen: The Teacher's Manual.

Hardy: How to Train Children's Voices.

Hulbert: Breathing for Voice Production.

Mason: How to Teach the Staff Notation.

SEMINAR IN HOUSEHOLD SCIENCE.

54. The development of Household Science; the relation of household science to the other subjects of the curriculum; its value and aims; household science in the Public School, in the High and Technical Schools and

DETAILS OF COURSES.

in the University; accommodations and equipment for household science work in the various types of schools: courses of study; methods of instruction; use of equipment and note-books; use of text-books; discussion of selected parts of the High School course of study.

Books of Reference:

Ontario Public School Manuals: *Household Science for Rural Schools, Household Management, Sewing.*

Balderston: Housewifery.

Baldt: Clothing for Women.

Cooley, Winthell, Spohr, Marshall: Teaching Home Economics.

Kinne: Equipment for Teaching Domestic Science.

PHYSICAL CULTURE.

55. PRINCIPLES: (For men and women):

Anatomy: Bone, composition, classification; bones of upper extremity; bones of the vertebral column; bones of the head; bones of the abdomen and thorax, bones of the lower extremity. Joints: Classification and description of movable joints; importance of joints. Muscle: Varieties, origin, insertion and action. Digestive system, stomach, liver, etc. Circulatory system: heart, arteries, veins, etc. Respiratory system. Nervous system.

Physiology: Oxidation and waste; metabolism; blood, composition, quality, the heart beat; respiration, mechanism, changes in the lungs, in the tissues; nervous mechanism of respiration; physiology of muscle. Digestion; digestive juices; function of saliva; gastric juice, pancreatic juice, and bile; succus entericus; changes in the food in the alimentary canal; lymph, movements; absorption. Nutrition; comparison of income and output of material, animal heat; diet.

First Aid to the Injured: Shock, wounds, bleeding, burns, exposure to cold, frostbite, fractures, sprains and dislocations, restoration of the apparently drowned, choking, foreign bodies in eye or ear, unconsciousness, fainting, apoplexy, heatstroke, poisons, bandaging.

Personal Hygiene.

PRACTICE: (For men only):

Calisthenics. Dumb-bells—Roberts, Barton, combinations; wands—elementary, Barton, miscellaneous; clubs—class club-swinging.

Elementary Exercises on Apparatus: Horse: vaults, flank, front, rear, screw, squat, straddle, wolf; mats: jumps and hops, jumps and hops with turns, underswings, underswings with turns, buck, vaults, same as on horse and vaulting bar.

Indoor Games: Course to enable teachers to coach and referee the following games: basketball, indoor baseball, volleyball.

DETAILS OF COURSES.

Outdoor Athletics: Field and track sports. Course to enable teachers to coach athletics and to direct athletic meets, starting, sprinting, running, broad jump, high jump, shot put, hurdles.

Boxing and single sticks, bayonet exercises; squad and company drill; rifle and musketry practice and skirmishing; saluting ; signalling; instruction in use of subtarget.

Swimming: Elementary.

Mutual instruction in the various exercises.

PRACTICE: (For women only):

Squad drill, marching tactics, wheeling, turnings.

Freehand exercises, including Strathcona Trust exercises; dumb-bell drills, elementary, advanced; wand drills, Barton; Anderson's twist drill; clubs, classified exercises.

Elementary exercises on the following apparatus: horse, mats, vaulting bar, buck, rings, Swedish stall bars, suspended ladder.

Indoor Athletic Sports: Running races, gymnasium games, including basket-ball; schoolroom and playground games.

Dancing: Technique of dancing; simplified athletic dances; folk dances and singing games; old English country dances.

Swimming: Elementary.

Mutual instruction in the various exercises.

Books of Reference:

The Syllabus of Physical Exercises for Schools.

Barton: Physical Training.

Bancroft: Games for Playground, Home, School and Gymnasium.

Burchenal: Dances of the People.

Burchenal: Folk Dances and Singing Games.

Chalif: Chalif Text-book of Dancing.

Corsan: At Home in the Water.

ART.

THEORY AND PRACTICE.

56. A. REPRESENTATION.

(1) *Pencil and Charcoal Drawing:*

The proper handling of the lead pencil and charcoal.

The principles of drawing, (1) in outline, (2) in neutral tones to represent colour values, and light and shade.

The principles of elementary perspective.

The study of the effects of light and shade and shadow.

The study of the laws of composition in the pleasing arrangement of objects in small groups.

DETAILS OF COURSES.

Freehand drawing, above and below the eye level, in outline, and in neutral tones, (1) from common manufactured objects of curvilinear and of rectilinear form, and (2) from natural forms, as flowers, fruits, plants, trees, insects, animals, etc.

Freehand drawing from memory.

(2) *Blackboard Drawing:*

Practice in making rapid sketches on the blackboard to ensure its use by the student-teacher in teaching other subjects of school study besides art.

(3) *Modelling:*

Modelling in clay and in plasticine of simple forms.

Casting in plaster.

(4) *Water Colour Painting:*

The theory of colour; colour perception; spectrum standards; properties of colour (hue, value, intensity); colour harmony (complementary, analogous, contrasted, and monochromatic scales).

Construction of colour charts.

Brushwork in monochrome.

Water colour painting from common manufactured objects, and from natural forms, of a single object and of small well-composed groups.

B. DESIGN AND LETTERING.

(1) *Decorative Design:*

The principles of decorative design.

The use of geometric and of natural forms in design.

The making of decorative designs and applying them to useful purposes.

The completion of decorative designs in balanced neutral tones and in harmonious colour schemes.

(2) *Lettering:*

The principles of lettering.

Lettering with the freehand and with mechanical aids.

The adaptation of lettering in exercises in applied design.

C. ART APPRECIATION AND THE HISTORY OF ART:

Pictorial Composition: The essential artistic qualities of pictures—in line, tone, and colour.

The study of masterpieces. Essays.

Illustration of given themes.

Visits for study to the Museum and the Gallery of Art.

The study of home and school furnishings and decoration.

An outline of the History of Art.

DETAILS OF COURSES.

D. METHODS OF TEACHING ART IN HIGH AND CONTINUATION SCHOOLS:

The Regulations of the Department of Education.

The real objects to be sought in the teaching of Art, involving a consideration of its relation to the life of the student and to the interests of the community.

The organization and equipment of classes.

The care of materials and of drawings.

The courses of study. A natural order and method of development of the subjects and the principles of these courses.

Methods of teaching form (including proportion and perspective), tone, colour, composition, decorative design, handling of mediums, and the appreciation of pictures.

The preparation of studies for class work.

The division of the time given to Art. The correlation of Art with other studies.

Conducting examinations in Art. Points to stress in criticising and valuing drawings

A discussion of teaching difficulties and methods of overcoming them.

A description of teaching helps and information as to how and where they may be secured.

Books of Reference:

Ontario Teachers' Manual: Art.

Branch: Illustrated Exercises in Design.

Caffin: A Guide to Pictures.

Caffin: How to Study Pictures.

Cross: Colour.

Cross: Light and Shade.

Low: Composition.

Hatton: Perspective.

Norton: Freehand Perspective and Sketching.

Prang's Art Education for High Schools.

Reinach: Apollo—Story of Art throughout the Ages.

Seaby: Blackboard Drawing.

Simonds: Modelling in Clay and Wax.

Strange: Handbook of Lettering.

Taylor: Elementary Art Teaching.

COURSE FOR ORDINARY CERTIFICATES IN HOUSEHOLD SCIENCE.

PURPOSE

The course for Interim Ordinary certificates in Household Science prepares candidates therefor in the theory and art of organizing, governing, and instructing in Household Science the pupils of the Public, Separate, and High Schools of Ontario.

CONDITIONS OF ADMISSION

A candidate for admission to the course for the Interim Ordinary certificate in Household Science should make application, not later than September 28th, on a form to be obtained from the Secretary of the Ontario College of Education and should submit with this application:

- (1) A certificate from a competent authority that she is a British subject.
- (2) A certificate from a clergyman or other competent authority that she is of good moral character.

- (3) A certificate from a physician that she is physically able for the work of a teacher and, especially, that she is free from serious pulmonary affection and from defective eyesight or hearing.

- (4) A statement signed by herself to the effect that she intends, when opportunity offers, to teach the subject of Household Science.

- (5) One of the following:

- (a) A Second-Class or First-Class Public School or an Ordinary High School certificate.

- (b) A Kindergarten-Primary or a Kindergarten Director's certificate together with Normal Entrance, Faculty Entrance, or equivalent certificates under other names.

FEES

- (1) The annual fee, which shall include tuition, laboratory supplies, and the use of the library shall be \$25.00.

- (2) At the beginning of the session, a deposit of \$4.00 will be required from each student. This deposit, less the cost of equipment and apparatus that may have been destroyed, will be returned at the close of the session.

- (3) If a student who has been granted an Ordinary Certificate teaches the subject of Household Science in a school in the Provincial system during the year following the examination, the fee of \$25 will be returned to her on the report to the Minister of Education by the Inspector of Household Science that the work has been satisfactorily performed. Applications for such refunds should be made to the Deputy Minister of Education.

COURSES IN HOUSEHOLD SCIENCE—*Continued.*

COURSE OF STUDY

The Course of Study for the Ordinary certificate in Household Science includes the following:

PART I

FOODS

Economics.—Marketing; points to be considered in selection; factors determining cost; saving of materials, fuel, and labour in preparation; care in the home; utilization of left-overs.

Food Values.—Composition of foods; requirements to maintain the body in health, factors influencing diet; digestion of foods; menu planning; diets for infants, children, and adults; special diets for use in the home care of the sick.

Preparation.—Scientific principles underlying methods of preparation; application of these principles by preparing food materials; practical and theoretical demonstration work; meal preparation (children's meals, home meals, the rural school lunch, etc.).

Table Service and Manners.

Special Schoolroom Methods.

CLOTHING

Selection.—Origin and manufacture of cotton, linen, wool, and silk; their properties and value in relation to their manufacture; identification of textile materials (names, widths, prices, uses).

Construction.—Handsewing (constructive processes applied to simple articles); use and care of sewing machine and its attachments; use of home and commercial patterns; cutting and making of simple garments.

Care.—Daily, weekly, and seasonal; removal of stains; repairing.

Special Schoolroom Methods.

HOUSEHOLD MANAGEMENT

The House.—Planning; furnishing; care (study of reagents, cleaning of metals, woods, textiles, laundry work); demonstrations; household administration (problems and technical procedures in the management of the modern home).

Sanitation.—Effect of environment on health; sanitary control of surroundings; disposal of waste.

Home Nursing.—Care of the infant, child, and adult; emergencies; bandaging.

Special Schoolroom Methods.

COURSES IN HOUSEHOLD SCIENCE—*Continued.*

ELEMENTARY APPLIED SCIENCE

Chemical composition and reaction of household materials; physiological values of foods and changes which they undergo in digestion, putrefaction, etc.; testing of water, carbohydrates, proteins, fats, vegetables, flours, cereals, baking powders, beverages, etc.

GENERAL METHODS IN HOUSEHOLD SCIENCE

Aims in teaching Household Science; scope of Household Science; relation to other subjects; methods of presentation in different types of schools; planning of courses; equipment; cost of lessons, etc. General discussions.

PART II.

Observation and Practice-teaching will be provided in the Public and High Schools of Toronto and will include a minimum of six practice lessons per student with an equal number of periods for observation lessons.

EXAMINATIONS

(1) Candidates for Ordinary certificates shall pass in each of Parts I and II under the following conditions:

(a) Part I.

The following shall be the subjects in Part I with the maximum value for each subject:

Foods	(200)
Clothing	(200)
Household Management	(200)
Elementary Applied Science	(100)
General Methods in Household Science	(100)

The standing of candidates in the subjects of Part I will be determined by the sessional records and the final written examinations.

The sessional records, to which shall be allotted one-half the maximum value assigned above to each subject, shall consist of the daily credits and of the results of oral, written, and practical tests given throughout the session.

The final written examinations, to which shall be allotted the remaining half of the maximum value assigned above to each subject, shall include the following papers:

Foods, 2 papers.

Clothing, 2 papers.

Household Management, 2 papers.

COURSES IN HOUSEHOLD SCIENCE—*Continued.*

Elementary Applied Science, 1 paper.

General Methods in Household Science, 1 paper.

The pass standard in Part I shall be 50% of the marks assigned to each subject.

(b) Part II.

The standing of candidates in Part II shall be determined wholly by the sessional records. For this purpose the maximum value assigned to practice lessons shall be 300, and to observation lessons, 100.

The pass standard in Part II shall be 60% of the aggregate of the marks for the practice lessons and for the observation lessons respectively.

(2) (a) Candidates who pass in Part II and fail in not more than two subjects of Part I will be exempted from further attendance.

(b) All other candidates who fail to obtain the necessary final standing will be required to attend another session, beginning after the Christmas vacation.

(3) (a) Candidates who are exempt from attendance under (2) (a) above may complete their standing for a certificate by taking, at one annual examination, or, separately, at different annual examinations the examination, written or practical or both, in the subject or subjects in which they failed.

(b) The pass standard for candidates not in attendance will be the same as that for candidates in attendance, but no allowance will be made for sessional work in the case of those not in attendance.

CERTIFICATES

A candidate who takes the subjects and passes the examinations therein prescribed above shall be entitled to an Interim Ordinary Household Science certificate which shall be valid in these subjects in any Public, Separate, or High School of the Province, and will be made Permanent on the report of the Inspector or Inspectors concerned that the holder thereof has taught successfully the subjects thereof for at least two years.

The Interim Certificate may be renewed under conditions satisfactory to the Minister.

COURSES FOR DEGREES IN PEDAGOGY

The Ontario College of Education offers courses of instruction for the degrees in Pedagogy during the regular College Sessions and during Summer Sessions.

DEGREES OF BACHELOR OF PEDAGOGY (B.PAED.)

The degree of Bachelor of Pedagogy (B.Paed.) will be awarded under the following conditions.

1. The candidate shall hold an approved degree in Arts, Science, Agriculture, Engineering, or Commerce.

2. The candidate shall be in attendance at the Ontario College of Education during two regular College Sessions or three Summer Sessions. A High School Assistant's, or First Class, or Second Class certificate valid in Ontario or a regular course in an approved training school for teachers will be accepted in lieu of attendance during one of these regular sessions or of one of the Summer Sessions.

3. The course shall consist of three subjects to be taken in any order and to be selected from the following:

Group A.—Science of Education, Educational Psychology.

Group B.—History of Education, Educational Administration.

Not more than two of these subjects shall be taken during a regular Session and not more than one during a Summer Session.

Candidates who, under Section 2 above, are exempted from attendance during one regular Session or one Summer Session will be exempted also from the instruction and examination in one of the three subjects, provided that the degree be awarded only to candidates who have taken the instruction and examinations in at least one subject in each of the two groups of subjects.

4. The examinations shall be held in May at the University of Toronto or in any other locality in the Province chosen by the candidate and approved by the Senate and under a presiding examiner appointed by the Senate, provided the candidate thereat defray the cost of the local examinations. The candidate shall send notice not later than the 15th day of March of his intention to take the examinations and of the locality he has chosen for such examinations.

5. The fee for registration is \$5. The fee for the Summer Session is \$10, the fee for the regular Session, which shall include the examination and library fees, is \$25. The fee for examination is \$3 for each subject. The fee for the degree is \$20. All fees shall be paid to the Bursar with the application for registration or examination, as the case may be.

6 The standard for a Pass degree shall be 60 per cent. of the marks assigned to each subject. The candidate who obtains 60 per cent. of the marks of each subject, and 66 per cent. of the aggregate of marks, shall be awarded a degree with Second Class Honours. The candidate who obtains 60 per cent. of the marks of each subject and 75 per cent. of the aggregate of marks shall be awarded a degree with First Class Honours. On the report of the instructors concerned, a maximum of 40 per cent. of the marks in any subject may be assigned to the term work of the candidate.

7. Subjects of Instruction and Examination

(a) The Science of Education, including a study of the philosophical, ethical, and sociological bases of education. (Two papers.)

(b) Educational Psychology. (Two papers.)

(c) The History of Education in Western Europe and North America in modern times, with special reference to Ontario, Great Britain, and the United States. (Two papers.)

(d) Educational Administration in Great Britain, the United States, France, and Germany, with special reference to the administration and organization of education in Ontario. (Two papers.)

8. Candidates who registered under former regulations may (a) complete their courses under those regulations provided that they do so not later than May, 1923, or (b) transfer to the present courses. On application before May, 1923, credit may be given in the new courses for examinations taken under former regulations, provided the candidate has attended a Summer Session or its equivalent in the subject or subjects in which he seeks credit.

DEGREES OF DOCTOR OF PEDAGOGY (D PAED.)

The degree of Doctor of Pedagogy (D.Paed.) will be awarded under the following conditions:

1. The candidate shall hold an approved degree in Arts or Science or in the applied sciences of Agriculture, Engineering, or Commerce.

2. The candidate shall be in attendance at the Ontario College of Education during three regular College Sessions or four Summer Sessions. A High School Assistant's, First Class, or Second Class certificate valid in Ontario, or a regular Course in an approved training school for teachers will be accepted in lieu of the attendance during one of these regular Sessions or one of the Summer Sessions.

3. The Course shall consist of the four subjects and a thesis as defined in Sections 5 and 7. The subjects may be taken in any order, provided that not more than two be taken in any regular Session and not more than one in any Summer Session. Candidates who, under Section 2, are exempted from attendance during one regular Session or one Summer

Session will be exempted also from the instruction and examination in one of the four subjects. Candidates who have been credited with one or more subjects of the B.Paed. course as defined in the regulations of 1921 will be exempted from the instruction and examinations in said subject or subjects.

4. The examinations shall be held at such times and under such conditions as to date of application, place of examination, percentages, etc., as obtain with the Bachelor's degree.

5. The candidate, after passing the prescribed examinations, shall also submit on or before March 1st a thesis on some educational topic selected with the approval of the Ontario College of Education. In valuing this thesis literary excellence, as well as the discussion of the subject, will be taken into account. After the examiners have reported in favour of the candidate's examinations and thesis, and before the degree of D.Paed. is conferred, the candidate shall furnish the Registrar of the University with ten copies of the thesis.

6. The fee for registration, if not already registered in the B.Paed. Courses, is \$5. The fee for the Summer Session is \$10; that for the regular Session, which shall include the examination and library fees, \$25. The fee for examination is \$3 for each subject. The fee for the degree is \$25. All fees shall be paid to the Bursar with the application.

7. Subjects of Instruction and Examination.

(a) The Science of Education, including a study of the philosophical, ethical, and sociological bases of education. (Two papers.)

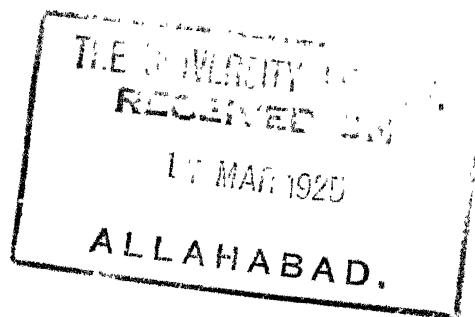
(b) Educational Psychology. (Two papers.)

(c) The History of Education in Western Europe and North America in modern times, with special reference to Ontario, Great Britain, and the United States. (Two papers.)

(d) Educational Administration in Great Britain, the United States, France, and Germany, with special reference to the administration and organization of education in Ontario. (Two papers.)

8. Candidates registered under former regulations may (a) complete the examinations under those regulations provided that they do so not later than May, 1923 or (b) transfer to the present Courses. On application before May, 1923, a candidate may be given credit in the new Courses for examinations taken under former regulations provided he has attended a Summer Session or its equivalent in the subject or subjects in which he seeks credit.

FACULTY OF FORESTRY



ENTRANCE REQUIREMENTS

A candidate for admission to the First Year in the Faculty of Forestry must produce satisfactory certificates of good character and of having completed the seventeenth year of his age on or before the first of October of the year in which he proposes to register.

He must also present certificates giving him credit in the following subjects of Pass and Honour Matriculation.

PART I—PASS MATRICULATION

ENGLISH (Literature and Composition).

HISTORY (British and Ancient).

MATHEMATICS (Algebra, Geometry and Trigonometry).

Any three of:

LATIN (Authors and Composition).

GREEK (Authors and Composition).

FRENCH (Authors and Composition).

GERMAN (Authors and Composition)

SPANISH (Authors and Composition), *or*

ITALIAN (Authors and Composition).

EXPERIMENTAL SCIENCE (Physics and Chemistry), *or*

AGRICULTURE.

PART II—HONOUR MATRICULATION

ENGLISH (Literature and Composition).

MATHEMATICS (Algebra, Geometry and Trigonometry).

Any one of:

LATIN (Authors and Composition).

FRENCH (Authors and Composition).

GERMAN (Authors and Composition).

In selecting the options it is recommended that students take French or German in Part II.

Admission may also be secured by candidates who (1) possess a degree in Arts, from any Canadian, British or American university of approved standing; (2) come from other institutions whose certificates are recognised by the University of Toronto as equivalent to the above entrance requirements, and will be accepted *pro tanto*; or (3) have completed a year, or the examinations for the year, with satisfactory standing, in the Faculties of Arts, Medicine or Applied Science.

In addition to the academic requirements, a robust physique and good eyesight are essential in the practice of the profession, and candidates markedly deficient in these will be advised not to proceed. Deficiency in eyesight will be found a particular handicap in future practical employment.

Persons, not candidates for a degree, who are not less than 21 years of age, and who give evidence of sufficient ability, and especially of practical experience, to enable them to carry on with profit University courses in the subjects of the Faculty, although partly deficient in the regular matriculation requirements, may be admitted by the Faculty as *Non-Matriculated Students* on such conditions as the Faculty may determine. Such students may be required to complete matriculation and qualify for the degree within a prescribed period of time.

Occasional Students may be admitted to not more than three forestry subjects.

REGISTRATION AND ENROLMENT

Applications for admission, together with matriculation or equivalent certificates, should be forwarded to the Registrar of the University at as early a date as possible.

Students must complete their registration in person on or before the first day of the session, September 26th. On the same or the preceding day students will enrol with the instructors in their various courses.

Students who have not complied with the regulations for registration and enrolment may be admitted only upon petition to the Faculty and for good reasons. They may be refused enrolment with classes unless the head of the department is satisfied that they are able to go on with the class. A charge will be made for late registration.

No student will be allowed to continue who does not attend regularly, who wilfully disobeys rules and regulations, or whose presence is otherwise considered prejudicial to the interests of the University.

REGULATIONS RELATING TO STUDENTS IN ATTENDANCE

No student will be enrolled in any year, or be allowed to continue in attendance, whose presence is deemed by the Council of the Faculty to be prejudicial to the interests of the University.

Students proceeding regularly to the degree are required to attend the courses of instruction and the examinations in all subjects prescribed for students of their respective standing, and no student will be permitted to remain in the University who persistently neglects academic work.

Unless special permission is granted by the Council, a student who, at the close of two sessions in the University, has failed to secure standing in his year, will not be permitted registration in the Faculty of Forestry.

The Students' Administrative Council has been entrusted by the Caput with supervision of the conduct of the students, and has power, subject to the approval of the Caput, to deal with violations of the regulations governing conduct.

Any student who may be convicted of having taken part in a parade or procession through the city which has not been authorized by the police

authorities after application by the Executive of the Students' Administrative Council, will be severely disciplined.

All interference on the part of any student with the personal liberty of another by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence, is forbidden by the Caput.

A student who is under suspension, or who has been expelled from a College or from the University, will not be admitted to the University buildings or grounds.

The constitution of every University society or association of students in the Faculty of Forestry and all amendments to any such constitution must be submitted for approval to the Council of the Faculty. All programmes of such societies or associations must, before publication, receive the sanction of the Council of the Faculty through the President. Permission to invite any person not a member of the faculty of the University to preside at or address a meeting of any society or association must be similarly obtained.

The name of the University is not to be used in connection with a publication of any kind without the permission of the Caput.

FEES

Regular Students in Forestry

First, Second, Third and Fourth Years. Annual fee, including instruction, main library, laboratory supply, and one annual examination, \$80.00.

If paid in full in October	\$80.00
By instalments:—	
First instalment, if paid in October	40.00
Second instalment, if paid in January	41.00

Combined Courses in Arts and Forestry

First, second, third, fourth, fifth, and sixth years. Annual fee, including tuition, library, laboratory supply, and one annual examination. The College fee in each of the first, second, and third years is \$30:—

If paid in full in October	\$70.00
By instalments:—	
First instalment, if paid in October	35.00
Second instalment, if paid in January	36.00

Occasional Students

The fee for occasional students is \$5.00 for the term for each course taken.

Penalties

After October 31st, a penalty of \$1.00 per month will be imposed upon tuition fees until the whole amount is paid. In the case of payment by instalments the same rule as to penalty will apply.

Students attending Fall Practice Camp will be allowed until November 15th to pay fees. Fees for Practice Camp, however, are due September 1st.

General Fees

Annual deposit for the departmental library.....	\$ 1 00
Supplemental Examinations	\$10 00
Admission ad eundem statum...	\$10 00
Degree of B.Sc.F.....	\$10 00
Degree of F.E.....	\$20 00

To defray expenses of spring nursery work a deposit of approximately \$30 00 will be required from Third Year students, and for fall practice work approximately \$80.00 from Fourth Year students.

Foresters' Club

Annual fee.....	\$2 00
Fee, Forestry Athletic Association	2 00

*Hart House, Students' Administrative Council and
Physical Training*

Hart House, annual fee	\$8.00
Students' Administrative Council, annual fee . . .	3 00
Physical Training, annual fee, First and Second Years only	5.00

Every male student in attendance, proceeding to the degree of Bachelor of the Science of Forestry, is required to pay to the Bursar at the time of the entry of his name with the Registrar the above annual fees.

All fees are payable in advance.

A student will not be admitted to any of the University lectures or laboratories who is in arrears for his fees.

A student is responsible for complete fees even for partial attendance unless he submits a written statement of his withdrawal to the Dean.

DEGREES

The satisfactory completion of the four-year course leads to the degree of Bachelor of the Science of Forestry (B.Sc.F.).

Graduates holding the degree of B.Sc.F., upon furnishing evidence of three years' practical employment in forestry work and the presentation of an acceptable thesis, the subject to be approved by the Faculty, will be given the degree of Forest Engineer (F.E.).

GEORGE E BOTHWELL MEDAL

The friends and classmates of Lieut. George E. Bothwell, who was killed in action September, 1916, have established the George E. Bothwell medal for proficiency in Silviculture. This medal will be awarded upon the recommendation of the staff.

PHYSICAL TRAINING

By order of the Board of Governors each male student proceeding to a degree must take Physical Training in the first and second years of his attendance. He must first undergo a medical examination by the Physical Director of the University in order to determine the character of his training.

It is specially desired that students obtain training in swimming.

SIX-YEAR COURSE

Besides the regular four-year course to which the above requirements and degrees refer, there is offered a six-year course, combining with the regular four-year course certain humanistic and arts subjects, this combination being intended to give a broader education than can be attained by the shorter, purely professional course. This course leads to degrees in both Arts and Forestry at the end of six years.

Entrance to this course is secured by the same matriculation as is prescribed for the Faculty of Arts, namely, in the following subjects: Latin, English, History, Mathematics, and any two of the following: Greek, German, French, Spanish or Italian, Experimental Science or Agriculture, preferably two languages. Two papers are set in each subject.

EXAMINATIONS AND STANDING

No student will be allowed to write on the annual examination who has not paid all fees and dues for which he is liable. A student who fails to perform the work in his course in a manner satisfactory to his instructors will not be allowed to present himself at the final examinations except by special permission of the Council.

The standard for pass in these examinations in all courses, whether taken in the Faculty of Forestry or any other Faculty, is 50 per cent of the marks for each subject. For students in the six-year course this has reference only to subjects in common with the regular course.

In making up the final standing of each candidate much consideration will be given to the character of his work through the term, including attendance, laboratory and field work, reports and term examinations.

Candidates who *fail* at the annual examinations in *more than two subjects* cannot proceed to the next year unless they have attained at least 70 per cent on the average in all other subjects, when their case will be specially considered.

Candidates who fail in one or two subjects at the annual examinations, only one of which may be a forestry or biology subject, may be allowed to take supplemental examinations in such subjects. These supplemental examinations must be taken in Arts subjects in September at dates set by the Faculty of Arts, in forestry subjects before December 15th. Students who are prevented by fieldwork or by sickness from writing in September may be permitted to write in January.

Candidates are required to send to the Secretary of the Faculty at least three weeks before the date of supplemental examinations, notice in writing of their intention to take such examinations, and at the same time the fee of \$10 (both September and January supplemental examinations) must be paid to the Bursar, and no student will be allowed to write who has failed to pay this fee.

If a candidate fail to pass a supplemental examination in a subject which is not basic to other subjects, he may carry it upon petition until the next examination, but if it be a subject fundamental to a subject of the year to which he wishes to advance he must take the subject over again (and if he fail in any three subjects he will be obliged to repeat the year). A student failing in laboratory work must repeat the same.

No candidate for a degree will be allowed to pass into the next higher year who has not fulfilled all the requirements of the next lower year.

STAFF IN FORESTRY

B. E. FERNOW, LL.D.,
Professor Emeritus

C. D. HOWE, M.A., Ph.D.,
Dean and Professor

J. H. WHITE, M.A., B.Sc F., Ph.D.,
Associate Professor

W. N. MILLAR, B.Sc., M.F.,
Associate Professor

STAFF IN OTHER FACULTIES

F. B. ALLAN, M.A., Ph.D.,
Professor of Organic Chemistry

E. W. BANTING, B.A.Sc.,
Lecturer in Surveying

E. F. BURTON, B.A., Ph.D.,
Associate Professor of Physics

W. A. CLEMENS, M.A., Ph.D.,
Assistant Professor of Limnobiology

J. R. COCKBURN, B.A.Sc.,
Associate Professor of Descriptive Geometry

A. P. COLEMAN, M.A., Ph.D., F.R.S.,
Professor of Geology

S. R. CREER, B.A.Sc.,
Assistant Professor in Surveying

J. H. FAULL, B.A., Ph.D.,
Professor of Botany

- H. W. A. FOSTER, LL.B.,
Lecturer in Commercial Law
 L. GILCHRIST, M.A., Ph.D.,
Assistant Professor of Physics
 G. E. JACKSON, B.A.,
Associate Professor of Economics
 G. B. KENRICK, M.A., Ph.D.,
Professor of Chemistry
 R. M. MACIVER, M.A., D.Phil.,
Professor of Political Economy
 H. A. McTAGGART, M.A.,
Assistant Professor of Physics
 W. A. PARKS, B.A., Ph.D.,
Professor of Palaeontology
 A. L. PARSONS, B.A.,
Associate Professor of Mineralogy
 J. SATTERLY, M.A., D.Sc.,
Associate Professor of Physics
 E. M. WALKER, B.A., M.B.,
Associate Professor of Biology

PLAN OF INSTRUCTION

The regular course leading to the degree of Bachelor of the Science of Forestry is a four-year course, the first two years of which are mainly devoted to the study of the fundamental subjects. The last two years are mainly occupied with forestry subjects, there being also time allowed, especially in the last year, to add general educational subjects and to specialize in different directions under advice of the Dean.

Students are required to take either French or German and the language chosen must be continued for three years.

The courses are distributed through the four years as follows:—

Note.—Numbers after the subjects refer to numbers of the courses as designated in the Calendars of the Faculties of Arts, Forestry, and Applied Science and Engineering, according to the Faculty in which the course is given. The work is stated in terms of the number of lecture or laboratory periods per week.

I YEAR

1. *Elementary Physics* (Arts 28). Two lectures and one laboratory period through the session.
2. *Elementary Chemistry* (Arts 1, 14). Two lectures and one laboratory period through the session.
3. *Elementary Botany* (Arts 5 and 6). Two lectures and two laboratory periods, first term.

4. *Elementary Zoology* (Arts 5 and 6). Two lectures and two laboratory periods, second term.
5. *French* (Arts 1b) or *German* (Arts 1b). Two lectures through the session
6. *Elementary Forestry* (Forestry 1) One lecture through the session.
7. *Descriptive Dendrology* (Forestry 2a). Three hours lecture and laboratory work through the session; Saturday field work first term.

SUMMER WORK

8. *Surveying Camp*—July 7 to August 18; *Forestry Camp*—August 20 to September 25, 1923

II YEAR

1. *Elementary Organic Chemistry* (Arts 3). Two lectures through the session.
2. *Elementary Geology* (Applied Science and Engineering 195). One lecture through the session.
3. *Mineralogy* (Applied Science and Engineering 257 and 259). Twenty-five lectures and forty hours laboratory.
4. *Surveying, Plane, and Map Drawing* (Applied Science and Engineering 270, 271). One lecture and two laboratory periods through the session.
5. *French* (Arts 2b) or *German* (Arts 2b). Two lectures through the session.
6. *Forest Mensuration* (Forestry 7a) Two lectures and one half day field or office work through the session.
7. *Dendrology* (Forestry 2b). Three hours laboratory work through the session.
8. *Biological Dendrology* (Forestry 5). Two lectures and two laboratory periods through the session.

SUMMER WORK

9. Employment in the field by Dominion or Provincial government or by private companies.

III YEAR

1. *Glacial Geology and Physiography* (Arts 13). One lecture through the session.
2. *Principles of Economics* (Arts 5). Two lectures through the session.
3. *Commercial Law* (Arts 8). One lecture through the session.
4. *Surveying, Topographical and Map Drawing* (Applied Science and Engineering 272, 273). One lecture and three laboratory periods through the session.

5. *French* (Arts 3a) or *German* (Arts 3a). Three lectures through the session.
6. *Forest Mensuration* (Forestry 7b). One lecture through the session
7. *Silvics* (Forestry 9). Two lectures through the session.
8. *Silviculture* (Forestry 6a). Three lectures first term.
Silviculture (Forestry 6b). Two lectures second term. One week at nurseries.
9. *Forest Utilization* (Forestry 8a). Three lectures through the session and ten days' trip to logging camp during the Christmas vacation, beginning December 22.

SUMMER WORK

10. Employment in the field by Dominion or Provincial government or by private companies.

IV YEAR

1. *Applied Chemistry* (Arts 12a). One lecture through the session
2. *Plant Pathology* (Arts 25). Seventy-five hours lecture and laboratory work, second term.
3. *Economic Entomology* (Arts 37), including Elementary Systematic Entomology. Two lectures and two laboratory periods through the second term.
4. *Forest Organization* (Forestry 11). One lecture through the session, ten seminars, second term
5. *Forest Valuation and Finance* (Forestry 12). One lecture through the session; theory and problems.
6. *History of Forestry* (Forestry 13). One lecture through the session.
7. *Forest Administration* (Forestry 14a and 14b). One lecture through the session.
8. *Forest Protection* (Forestry 10a and 10b). One lecture through the session and one week at practice camp at opening of session.
9. *Forest Utilization* (Forestry 8b). One lecture through the session and one afternoon weekly for visits to wood-using plants
10. *Forest Utilization* (Forestry 8c). One lecture through the first term.
11. *Forest Mensuration* (Forestry 7c). Three weeks field work at practice camp at opening of session.
12. *Wood Identification and Timber Physics* (Forestry 4a). One lecture and six hours laboratory work first term.
13. *Wood Technology* (Forestry 4b). One lecture second term.
14. *Forest Geography* (Forestry 3). Two lectures through the session.

FIELD WORK

Beginning in 1923 all students completing the first academic year in a satisfactory manner will be required to attend summer practice camps for

instruction in surveying and forestry The Survey Camp at Gull Lake, near Minden, Ontario, will continue for a period of six weeks, beginning July 7. The work at the camp will embrace the following. Chain and compass surveying, adjustments of instruments, chain and transit surveying, measurement of angles, lake shore traversing, boundary line traverse, plane-table surveys, stadia topographical surveying, stream gauging and hydrographic surveying, differential levelling, profile levelling, cross-sections, simple circular curves with problems.

The Forestry Camp in the Timagami Forest Reserve will begin August 21 and continue until September 25, 1923. The work will include the identification of trees, shrubs and the more important herbaceous elements of the forest flora, the interpretation of topographic forms, origin and classification of soils, forest description and the recognition of forest types, estimating the volume of single trees and of stands.

The Third Year students are required to spend a week or ten days of the Christmas vacation in lumber camps for the purpose of becoming acquainted with the methods of their management. A report on the results of such inspection visits will be required.

At or near the end of the spring term the government nurseries at St. Williams, Ontario, will be visited for a week for practice in nursery work and planting by the Third Year students in connection with the course in Silviculture This work forms an integral part of the course and constitutes a requirement for the degree.

Six weeks at the beginning of the Fourth Year will be spent at the Forest School Practice Camp in the Timagami Forest Reserve. During this time timber estimating, tree measurements, studies of rate of growth, forest description and forest survey, the making of working plans, and other practical woods work will occupy the students. The students must report at the Camp on September 25, 1923.

The students are required to pay their own expenses at the camps. Board is furnished at cost. Last year this averaged \$1.50 a day. The railway fares will amount to about \$50 from Toronto and return for the camps at the end of the First Year, and about \$30 for the camp at the beginning of the Fourth Year. The visit to the logging camps in the Third Year costs about \$50, and the trip to the nurseries at St. William approximately \$20

SCHEDULE FOR SIX-YEAR COURSE

Combined Forestry and Arts

This schedule may, with the concurrence of the Faculties concerned, be varied in order to meet the exigencies of the time-table.

First Year

Latin, 1a, or Greek, 1a.	Zoology, 5, 6.
English, 1a, 1b.	One of Greek and Roman History, 1; or Religious Knowledge, 1a, or 1b or 1c, or 1d.
German, 1a, or French, 1a.	Forestry, 1.
Mathematics, 1a, 1b, 1c, or 1l, 1m.	
Physics, 1, 2, 18.	

Second Year

English, 2a, 2b.	Botany, 5, 6, 9.
German, 2a, or French, 2a.	One of Religious Knowledge, 2a, or 2b, or 2c, or 2d, or 2e, or Geology and Palaeontology 1,
History, 2a.	Forestry, 2a.
Chemistry, 1, 14.	
One of Latin, 2a or Physics, 3b, or Military Studies, 1.	

Third Year

English, 3a, 3b.	Surveying, Plane, and Map Drawing, 270, 271.*
German, 3a, or French, 3a.	Botany, 7, 17.
Chemistry, 3.	One of Religious Knowledge, 3a, or 3b, or 3c, or 3d, or 3e, or 3f; or World History, 1, or 2, or Military Studies, 2.
Mathematics, 2j, or Actuarial Science, 3.	Forestry, 2b, 7a.
Geology, 195*.	
Mineralogy, 257, 259*.	

Fourth Year

Glacial Geology and Physiography, 13.	One of Religious Knowledge, 4a, or 4b, or 4c, or 4d, or 4e, or 4f; or World History, 1, 2, or Military Studies, 3.
Surveying, Topographical, and Map Drawing 272, 273*.	Forestry, 6, 7b, 8a, 9, 10a.
History, 4a.	Nursery work.
Chemistry, 4, or Physics 4, 5, or Philosophy, 3b.	

Fifth Year

English 4a 4b.	Zoology 37.
Political Economy 1a, 1b 5.	Forestry 4, 4a, 5, 7c, 8b, 8c, 9, 10b, 11.
Law, 4.	Practice Camp.
One of Philosophy, 4a, or Science, to be arranged.	

*Calendar of the Faculty of Applied Science and Engineering.

Sixth Year

Chemistry, 12a.

Botany, 25.

Law, 8.

Philosophy, 4b.

Engineering, to be arranged.

Forestry, 3, 10, 12, 13, 14a, 14b.

DESCRIPTION OF COURSES

1. *Elementary Forestry*. An introduction to the subject of forestry and a survey of the economic and political aspects of timber land management. This course, carried on in seminary style, is designed also for students of political economy and all those who desire a general knowledge of forestry problems. 25 hours.

2. *Descriptive Dendrology*. A taxonomic study (2a) of the forest trees (dendrology) and (2b) of the minor forest flora of North America and forage plants, laying special stress on the characteristics which lead to the recognition of the species in the field, with practice work in securing familiarity with morphological and other characteristics for identifying Canadian and exotic trees and shrubs, tree seeds and seedlings. 150 hours and field work.

3. *Forest Geography*. The geographical distribution, botanical composition and character of forests of the world, and of Canada in particular, with special reference to the ecological factors, climate and soil, influencing forest growth. Field practice in recognizing forest types and in making forest descriptions at the practice camps. 50 hours.

4a. *Wood Identification and Timber Physics*. Wood structure with a view to identification of the different woods: physical and mechanical properties; relation of properties. 85 hours.

4b. *Wood Technology*. Technical properties and uses of Canadian woods and of their competitors; kinds and quantities produced and used in Canada. 15 hours.

5. *Biological Dendrology*. Life history, laws of growth of trees, their dependence on ecological factors and silvicultural requirements of different species. Lectures and laboratory work. 150 hours.

6. *Silviculture*. (a) Principles and practice of the art of forest production and forest improvement, methods of natural reproduction. (b) Artificial regeneration and nursery practice. 60 hours and practice work.

7a. *Forest Mensuration*. Methods of ascertaining the contents of logs and trees, scaling, tree form, construction and use of volume tables, timber estimating. Lectures, recitations; field and office work. Two hours through the session and one half day of field work. Chapman's *Forest Mensuration* is used as a textbook.

7b. *Forest Mensuration*. Methods measuring the growth and yield of trees and stands. One hour through the session. Chapman's *Forest Mensuration* is used as a textbook.

7c. *Forest Mensuration*. Field practice in forest surveying, topographic mapping and timber estimating on a large scale, location of survey lines and corners, field methods of measuring logs and trees for volume and taper tables, stem analysis and growth measurements. Three weeks in fall practice camp in Northern Ontario.

8a. *Forest Utilization*. Organization of logging operations, methods of logging employed in various regions of Canada and the United States, minor woods industries related to lumbering, logging regions of Canada. Three hours through the session and ten days field work during Christmas vacation in a logging camp. Bryant's *Logging* is used as a reference.

8b. *Forest Utilization*. Equipment and operation of lumber manufacturing plants, pulp and paper mills, wood distillation, cooperage and box making, veneers and other important wood-using industries. One hour through the session and one half day for trips to typical wood-using plants.

8c. *Forest Utilization*. Seasoning and grading of lumber, timber preservation, fire proofing; the lumber industry, customs and usages, lumber shipping and inspection, lumber associations, timber appraisal. One hour of lectures through one term and occasional visits to local lumber yards, dry kilns and timber-treating plants.

9. *Silvics*. The life history of the forest; influence of the environmental factors, the laws of invasion and succession, the basis of differentiation of forest types. 50 hours.

10a. *Forest Protection*. Methods of guarding against injury to forests by wind, frost, insects, trespass and other miscellaneous injurious agents; protection of forests from fire, organization of forest protection forces, cooperative forest protection in Canada, equipment, construction and use of forest improvements, roads, trails, telephone lines, lookout systems, aerial patrol, fire-fighting. One hour of lectures through the session.

10b. *Forest Protection*. Construction, operation and maintenance of forest telephone lines, use of heliographs, flags, signal lanterns and wireless telephones in forest protection, signal codes, relation of system of communication to the organization of protection forces and the detection and suppression of forest fires. One week of lectures and field work at fall practice camp in Northern Ontario.

11. *Forest Organization*. Principles and methods underlying the preparation of working plans for continuous wood and revenue production. 35 hours.

12. *Forest Valuation and Finance*. Methods of ascertaining money value of forest growths and application of the principles of finance to forest management. 25 hours.

13. *History of Forestry*. Historical development of the economic and technical features of modern forestry at home and abroad. 50 hours.

14a. *Forest Administration.* Fundamental principles of administrative organization, selection and training of a forest personnel, civil service commissions, forest administrative organizations of Canada. One hour of lectures for one term.

14b. *Forest Administration.* Laws and regulations under which forests are administered and protected by the Dominion Government and the various Provinces of Canada. One hour of lectures for one term. Forest Acts and Regulations of the Federal Government and the Provinces are used as texts.

OPENINGS FOR FORESTERS

To meet the many inquiries of students contemplating the choice of forestry as a profession the following statements may serve:

Openings for foresters may be found in four or five directions, namely, government employ, private employ, private enterprise, teaching, and other business.

The Dominion Forestry Branch, which has charge of the Dominion timber lands in Alberta, Saskatchewan, Manitoba, part of British Columbia, and the unorganized territories, is employing graduates to do the technical work in exploring and classifying lands for forest reservations, surveying, mapping and determining contents of such reservations, organizing a forest fire service, controlling the grazing, timber sales and logging, and generally providing for an administration of forest reservations, of which there are now a dozen, under supervisors. These will have to work out the details of a forest management. The Forestry Branch maintains large nurseries from which plant material is distributed for planting in the prairies; a staff of experts attend to the growing and distribution of plants, and inspect the planting. Other field work with the Dominion Forestry Branch consists in silvicultural investigations. Statistical and technological investigations are carried on and results published at the main office in Ottawa and its Forest Products Laboratories at Montreal. Nineteen of our graduates are employed by the Dominion Forestry Branch.

The Provincial Forestry Branch of Ontario has charge of about 100,000,000 acres of forest lands and these are being gradually organized into districts for administrative purposes. The Branch maintains a large forest nursery at St. Williams in Norfolk County, where there are as well large plantations of various ages. The Province is inaugurating an extensive reforestation programme for the waste lands in which eventually thousands of acres will be planted and this will require an increasing number of men trained in silvicultural work. At present the Provincial Forestry Branch employs nine graduates of the School.

The Quebec government has for some time organized and developed a forest service, but it provides its own technical men.

A number of paper manufacturing companies have for some years availed themselves of the services of foresters, to survey, map and plan operations

of their forest properties. Timber limit holders have employed such for similar purposes, and the time is not far distant when there will be a more general development in this direction. Eight graduates are in the employment of pulp and paper companies.

Besides the permanent employment for graduates by the Dominion Forestry Branch, the Provincial Forestry Branch, and by private companies, undergraduates find temporary employment during the summer vacation from all three of these organizations, chiefly in surveying, mapping and estimating work. The salaries for graduates are more or less standardized by the Dominion Civil Service. They begin at \$1,320 and pass rapidly to \$1,680, when advancement is slower. The more successful men reach \$3,000 to \$3,500 in about ten years. With these salaries, from the beginning, go certain allowances for expenses which materially increase their actual value. During the summer months the undergraduates receive from \$70 to \$100 per month, according to experience, exclusive of field expenses.

Altogether, however, it needs to be understood that there will always be only a limited demand for high grade professional men, at least for some time to come; and only those with a special love and aptitude for the arduous work which is largely involved should enter the profession.

Besides the directions above outlined as offering employment for foresters, the education of foresters is such as to prepare them for transferring readily into other employment, such as park superintendents, landscape architects, nursery work, horticulture, and lumberman's business in its various phases.

FACULTY OF MUSIC

DEGREE OF BACHELOR OF MUSIC

The degree of Bachelor of Music (Mus. Bac.) will be conferred by the University of Toronto upon students of music, on compliance with the requirements of the curriculum in music which may from time to time be prescribed by the Senate.

MATRICULATION

Notice is hereby given that beginning with the Session 1923-1924 complete pass matriculation may be required of the candidates in this Faculty.

The subjects for matriculation in Music are English and two of: Greek, Latin, German, French, Italian or Spanish.

The courses of study prescribed for matriculation in each of these subjects will be found in the Curriculum for Junior Matriculation, a copy of which may be obtained on application to the Registrar of the University.

A candidate for the degree of Bachelor of Music must complete his matriculation prior to admission to the examination of the final year.

The pass standard is the same as that for pass Junior Matriculation.

A candidate who has obtained the average of sixty per cent. on all the six papers but has failed to obtain forty per cent. in at most two of these papers may complete Junior Matriculation by passing on these papers at any one subsequent examination.

A candidate who has obtained forty per cent. on each of at least four papers, with an average of sixty per cent. on the same, will be credited with these papers. In order to complete his Matriculation, he must obtain at one subsequent examination, forty per cent. on each of the remaining papers, with an average of sixty per cent.

A candidate who is actually engaged in a mercantile, industrial or other occupation may proceed to pass Matriculation under special conditions to be found in the Curriculum for Junior Matriculation.

Special application for Matriculation may be dealt with by the Senate.

REGISTRATION

Every student shall, in each year of his course, register his name with the Secretary of the Faculty of Music not later than the first of November.

After the first of November registration can be effected only by petition to the Faculty and on payment of a fine of One Dollar a month for each month after October.

UNDERGRADUATE COURSE

In addition to Matriculation the candidate must have passed three examinations before the degree of Bachelor of Music shall be granted.

FIRST YEAR

1. Harmony in three and four parts.
2. Counterpoint in two and three parts.
3. The History of Music from 1600 to 1800.

SECOND YEAR

1. Harmony in not more than four parts.
2. Strict Counterpoint (including the treatment of the various species in combination) in not more than four parts.
3. Double Counterpoint at the octave, in two parts.
4. Canon in two parts.
5. Fugue as far as subject and answer.
6. The History of Music from 1800 onwards.
7. Musical Form as far as the simple forms and analysis of the musical sentence.

FINAL YEAR

A. THEORY OF MUSIC:—

1. Harmony in not more than five parts, including some original work.
2. Counterpoint, strict and free, in not more than five parts.
3. Canon in two and three parts.
4. Double Counterpoint at the octave, 10th, 12th, and 15th.
5. Imitation and Fugue up to four parts.
6. A general survey of the History of Music from the earliest times to the present. (Text-book recommended, Bonavia Hunt's History of Music, but see also list of text-books on page 11).
7. Elements of Acoustics.
8. Musical Form in general.

9. Orchestration.

10. Viva voce:—Analysis of the full orchestral score of some classical work or works. 1923: Beethoven's Symphony, No. 7, or Brahms' Symphony, No. 2, or Liszt's Les Préludes.

11. There will also be required an original composition, either sacred or secular, containing at least four movements and sufficiently long to occupy from fifteen to twenty minutes in performance. This must be

- (a) A chorus in five parts, with a short instrumental introduction.
- (b) A recitative and solo.
- (c) A quartette or quintette for voices only.
- (d) A four part vocal fugue.

Numbers (a), (b) and (d) must have accompaniments for string band only.

This composition must be sent to the Secretary of the Faculty not later than April 1st accompanied by a declaration that it is the candidate's own unaided work.

Candidates for the degree may defer presenting this composition until a subsequent annual examination, in which case the fee for examination shall be \$10.

B. PRACTICAL MUSIC:

Candidates shall be required to play—on the piano or some orchestral instrument—or sing:—

Two or three compositions (or portions of them), selected by the examiner. They shall also be required to play, at the keyboard, the following tests, etc.:—

- 1. Transposition.
- 2. Extemporization upon a given theme.
- 3. Modulation.

Equivalent tests will be imposed for singers, or players upon orchestral instruments.

In the case of those candidates who have obtained Licentiate standing in the University of Toronto or in the Toronto Conservatory of Music requirements (11) and (B) will not be exacted but there will be required instead a short original composition in one of the following forms:

- (a) A Solo Song with Pianoforte Accompaniment.
- (b) A Four-part Vocal Composition.
- (c) An Instrumental Composition (other than a Dance) for the Pianoforte or Organ, or for any Stringed or Wind Instrument with Pianoforte or Organ Accompaniment.

The Senate may admit *ad eundem statum* undergraduates of other Universities after due inquiry as to the requirements demanded by the institutions in which the candidates obtained their standing.

EXAMINATIONS

The examinations will take place at times to be fixed by the Senate.

Applications must be transmitted to the Secretary of the Faculty before the first of April, and at the time of application the proper fee must be paid to the Bursar.

The total number of marks necessary to pass on any subject is 60, second class honours, 70; first class honours, 80, maximum 100.

FEES

Matriculation.....	\$10.00
Registration and Lecture Fees (Annual)....	\$5.00 each 10 00
Each examination subsequent to matriculation.....	10 00
For admission <i>ad eundem statum</i>	10 00
Degree of Mus. Bac.....	20 00
Lecture Fee for Occasional Students, \$2.00 for each subject, covering all subjects, fee.....	5 00

TEXT-BOOKS

Stainer's Treatise of Harmony; Prout's Harmony; Hiles' Grammar of Music, Books I. and II.; Bannister's Music; Bridge's Primer of Counterpoint; Prout's Counterpoint; Richter's Counterpoint (Franklin Taylor's edition); Cherubini's Counterpoint, Canon and Fugue; Prout's Double Counterpoint and Canon; Jadassohn's Canon and Fugue; Albert Ham's Rudiments of Music and Elements of Harmony; Pearce's Student's Counterpoint; Pearce's Modern Academic Counterpoint; Higgs' Primer of Fugue; Prout's Fugue; Stainer's Primer of Composition; Prout's Musical Form; Ouseley's Musical Form; Prout's Fugal Analysis; Prout's Primer of Instrumentation; Niemann's Catechism of Musical Instruments; Berlioz on Instrumentation; Stone's Primer on Scientific Basis of Music; Sedley Taylor's Sound and Music; Sedley Taylor's Science of Music; Tyndall on Sound; Bonavia Hunt's History of Music; Naumann's History of Music; Parry's Summary of Musical History (Primer); Rockstro's History of Music; Articles in Grove's Dictionary of Music and Musicians bearing on the various subjects for examination.

Candidates are not restricted to the above list, which is only suggested. The paper work is judged irrespective of any particular author or school.

DEGREE OF DOCTOR OF MUSIC

Candidates for the degree of Doctor of Music must be Bachelors of Music of this or another university of at least three years' standing. Every candidate shall register his name with the Secretary of the Faculty not later than the first of November.

Candidates must present a musical exercise by the first day of April for submission to the examiners in Music, the approval of which is a necessary preliminary to further examination.

The exercise must be of the nature of a Cantata, sacred or secular, scored for full orchestra, and requiring from 40 to 60 minutes for its performance. The cantata must include an overture and parts for one or more solo voices, in addition to choruses.

If the exercise be approved the candidate must undergo an examination of a more advanced character than is involved in the Mus. Bac. examination in Harmony, Counterpoint, Fugue, Musical Form, Orchestration, and Musical History.

The fee for the examination is fifty dollars, divided as follows: Reading exercise, twenty-five dollars; practical and theoretical examinations, twenty-five dollars.

The fee for the degree is thirty dollars.

The examinations will take place at times to be fixed by the Senate.

Applications must be transmitted to the Secretary of the Faculty before the first of April, and at the time of application the proper fee must be paid to the Bursar.

GRADUATE STUDIES

GENERAL REGULATIONS

ADMISSION

1. Advanced courses of instruction and facilities for research are offered to students who are graduates of any University or College of recognized standing.

2. Admission to these advanced courses, or to the privileges of research, does not in itself imply admission to candidacy for a higher Degree.

REGISTRATION

3. Application for registration as a graduate student must be made to the Secretary of the School of Graduate Studies not later than the 5th of October in any year, and the application must be accompanied by statements of the applicant's degrees, of the courses pursued as an undergraduate and his standing therein, and of the courses he wishes to pursue.

DEGREES

4. The Degrees which the University of Toronto offers to graduate students are those of Doctor of Philosophy, Master of Arts, Doctor of Medicine and Master of Surgery, Master of Applied Science, Master of Architecture, Civil Engineer, Mining Engineer, Mechanical Engineer, Electrical Engineer, Chemical Engineer, Doctor of Pedagogy and Forest Engineer.

REGULATIONS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

5. A candidate for the Degree of Doctor of Philosophy must have been regularly registered as a graduate student in this University in accordance with the provisions of Section 3. Registration must be repeated at the beginning of each year of the course.

6. The candidate shall, as a registered graduate student, have pursued in this University for at least three years, under the direction of some one department, an advanced course of study, which must be approved by the Council of the School of Graduate Studies. Exemption from one of the three years required may be granted by the Council, on the report of the department concerned, to a candidate who has furnished satisfactory evidence of having pursued for at least one year a course of advanced study in his major subject at another University, or who, at graduation as

Bachelor of Arts in this University, has obtained First Class Honours in a special course, covering one year of advanced study, approved by the Council.

It must be clearly understood, however, that the Degree is granted only to such students as give evidence of general proficiency, power of investigation and high attainments in the special field in which the major work is done.

7. A statement of the course of study proposed must be sent to the Secretary of the School of Graduate Studies not later than the 1st of November of the first year of registration and must be accompanied by the approval of the departments concerned.

8. The course shall include the study of a special subject, termed the major subject, and of two other subjects, termed the minor subjects. Only one minor subject shall be selected from the group of subjects of the department which includes the major subject. The time devoted to the two minor subjects should not exceed two-thirds of that required for the major subject.

9. The candidate must have an adequate knowledge of French and German. For special reasons the substitution of another foreign language for one of these will be permitted. In some departments a knowledge of Latin is also essential.

10. At a time to be determined by the Council on the advice of the department or departments concerned, the candidate shall undergo written and oral examinations both on his major subject and on his minor subjects, conducted by the departments in which the major and minor subjects are included. The examiners may dispense with written examinations in one or both minor subjects provided they are satisfied, from the candidate's record, that he has a competent knowledge of such subject or subjects. Such dispensation must be reported to the Council of the School.

11. The candidate shall present, either during his course of study or at the completion of it, a thesis embodying the results of an original investigation, conducted by himself, on some approved topic selected from his major subject.

12. The acceptance of the thesis shall be determined by the Council on the report of the department which includes the major subject. This report shall state, in terms to be approved by the Council, whether the thesis complies with the conditions prescribed by this University, and, in the judgment of the department, is worthy of publication, and whether the department recommends that the thesis be accepted in conformity with the requirements for the Degree of Doctor of Philosophy.

13. On the acceptance by the Council of the thesis submitted by a candidate, and of favourable reports from the departments in which his major and minor subjects have been taken, he shall be deemed to have fulfilled the requirements for the Degree in so far as his knowledge of those subjects is concerned. The candidate shall then be required to undergo an oral examination before the Council in order to establish his general fitness for the Degree.

14. Before the Degree is conferred upon a candidate he must, subject to the approval of the Council, make such arrangements as will ensure the publication of the thesis, and the presentation within a specified time of such number of copies as the Council may direct. Each printed copy shall, on its title page, contain the words "A thesis submitted in conformity with the requirements for the Degree of Doctor of Philosophy in the University of Toronto".

15. On the report of the Council that all the requirements have been complied with, the Senate may, either at a Convocation or at any one of its regular meetings, confer on the candidate the Degree of Doctor of Philosophy.

REGULATIONS FOR THE DEGREE OF MASTER OF ARTS

16. A candidate for the Degree of Master of Arts must have been regularly registered as a graduate student in this University in accordance with the provisions of Section 3. Should the course of study extend over more than one year registration must be repeated at the beginning of each year.

17. If not registered as a graduate student at the beginning of the academic year, as provided in the regulations given above, the candidate shall not be eligible for the degree in the following June.

18. A statement of the course of study or the subject of the thesis proposed, must be sent to the Secretary of the School of Graduate Studies not later than the 1st of November, and must be accompanied by the approval of the department or departments concerned.

19. Attendance during at least one session is obligatory on candidates for the Master's Degree; but the Council of the School of Graduate Studies may dispense with such attendance if the department or departments concerned recommend such dispensation on the ground of special facilities existing elsewhere.

20. A candidate will proceed to the Degree under one or the other of the following sets of regulations according as he is a Bachelor of Arts in an Honour Course or a Bachelor of Arts in the Pass Course. In accepting as a candidate a graduate of another University or a graduate of a faculty other than that of Arts, the Council shall, on the basis of his qualifications, assign him, for the purpose of this clause, to one or the other of these classes.

I. BACHELORS OF ARTS IN AN HONOUR COURSE.

(a) By the pursuit for at least one year of an approved course of study and the passing of a satisfactory examination therein. A course of study shall not be approved by the Council unless (1) it is a continuation of a course previously pursued for graduation, or (2) it has been recommended by the department concerned on account of other special qualifications possessed by the candidate. In this latter case the course will normally extend over at least two years *or*

(b) By presenting a thesis embodying the results of some special study or investigation and adjudged to be of sufficient merit. The thesis shall be accepted only on the approval of the department or departments concerned. The candidate shall be required to pass an examination, written or oral, or both written and oral, conducted by the department or departments concerned, on the subject of the thesis and on his general knowledge of the subject of the department or departments. This examination shall not be held earlier than six months after the date of registration, and a printed or typewritten copy of the thesis submitted must be presented to the Secretary of the School of Graduate Studies at least two weeks before the Examination takes place. The thesis must be presented not later than the 1st of May, in order that the candidate may be eligible for the Degree in the following June.

II. BACHELORS OF ARTS IN THE PASS COURSE.

(a) By the pursuit for at least two years, under the direction of one department, of an approved course of study and the passing of a satisfactory examination therein. No course of study shall be approved by the Council unless it is based on courses which have been taken for at least three years in the undergraduate course.

(b) Under exceptional circumstances only, the Council may permit a Bachelor of Arts in the Pass Course to proceed to the Degree of Master of Arts by thesis, in accordance with the regulations in clause 20, I (b). The candidate must be of at least two years' standing as Bachelor of Arts.

Graduates in Arts of this University, who have fulfilled all the requirements for the Degree of Doctor of Philosophy, may, on payment of the fee for the Degree of Master of Arts, be admitted to that Degree without further examination. Graduates in Arts of another University, or graduates in other Faculties of this or another University, who have fulfilled all the requirements for the Degree of Doctor of Philosophy, may, on special recommendation to that effect by the departments concerned, also be admitted to the Master's Degree without further examination, on payment of the fee for that Degree.

REGULATIONS FOR THE DEGREE OF
DOCTOR OF MEDICINE AND MASTER OF SURGERY

The Degrees which the Faculty of Medicine, University of Toronto, offer to Graduate students are those of Doctor of Medicine (M.D.) and Master of Surgery (Ch.M.).

Before a candidate will be eligible to register for these degrees he must have fulfilled the following entrance requirements:

(1) Graduated in Medicine from a recognized University.

(2) Spent one year in a Hospital as an Interne on a rotating service or its equivalent. (Two years general practice may be accepted as the equivalent of this).

Length of Course:

The course will be normally of three years' duration of twelve months each.

Three years or more in general practice may be accepted as equivalent to one of the clinical years of the course. One full year's special work in one of the required laboratory subjects of the course may be accepted as equivalent to the laboratory year of the course. A graduate having the B.Sc. (Med.) will be considered as having fulfilled this requirement. In very exceptional cases both of the above alternatives may be allowed.

The Course will consist of:

First Year (Clinical).

One year's instruction in Medicine or Surgery.

This may be taken while the student is acting as a Hospital Interne in the selected clinical subject. (This is in addition to the internship on a rotating service.)

Second Year (Laboratory).

One year's instruction in a laboratory subject.

The student will devote the major part of his time for this year to work in one of the following laboratory departments and the minor part to work in any other two of these departments:

- (a) Anatomy.
- (b) Physiology.
- (c) Biochemistry.
- (d) Pathological Chemistry.
- (e) Pathology.
- (f) Bacteriology and Immunology.
- (g) Pharmacology.
- (h) Physics.

Third Year (Clinical).

One year's instruction in Medicine or Surgery.

One of the clinical years in the course for the Surgical Degree may be spent in the Department of Obstetrics and Gynaecology.

This clinical year may be taken while holding a hospital appointment in the selected clinical department.

Candidates in Medicine or Surgery, besides being familiar with the general field of the subject, must be able to make:

- (a) A satisfactory examination of the Eye, Ear, Nose and Throat.
- (b) A satisfactory pelvic examination.
- (c) A satisfactory routine laboratory examination.

Candidates must present a satisfactory thesis and pass an examination in the subjects of instruction at the end of the course. Candidates proceeding to the Ch.M. must pass an examination in General Surgery.

REGULATIONS FOR DEGREES OF
MASTER OF APPLIED SCIENCE, MASTER OF ARCHITECTURE,
CIVIL ENGINEER, MINING ENGINEER, MECHANICAL
ENGINEER, ELECTRICAL ENGINEER, CHEMICAL ENGINEER

A. The regulations governing the Degrees of Master of Applied Science and Master of Architecture for the session 1922-23 shall be determined as follows:

1. A candidate for the degree of Master of Applied Science or Master of Architecture shall hold the degree of Bachelor of Applied Science of this University or a degree from some other University recognized as equivalent by the Council of the School of Graduate Studies.

2. He shall register with the Secretary of the School of Graduate Studies at the beginning of the academic year.

3: Not later than November 1, 1922, he shall submit to the Secretary for acceptance by the Council of the School of Graduate Studies the title of his proposed thesis as approved by the department concerned.

4. Not later than April 30th, 1923, he shall present evidence to the Council of the School of Graduate Studies that he has spent not less than one academic year of the department concerned as a student enrolled in one of the following departments on a course of study approved by the department: Civil Engineering, Mining Engineering, Mechanical Engineering, Architecture, Chemical Engineering, Electrical Engineering, Metallurgical Engineering.

5. Not later than April 30, 1923, evidence that the candidate has satisfactorily met all the requirements of the department with regard to thesis and to such examinations as the department shall require, shall be forwarded to the Council of the School of Graduate Studies through the sub-committee administering the regulations governing the degrees of Master of Applied Science and Master of Architecture.

B. The regulations governing the Professional Degrees of Civil Engineer (C.E.), Mining Engineer (M.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), Chemical Engineer (Chem.E.), for its Session 1922-23 shall be determined as follows:

1. A candidate for one of the said degrees shall hold the diploma of the School of Practical Science or of the Faculty of Applied Science and Engineering or the degree of Bachelor of Applied Science.

2. He shall have spent at least three years after receiving the diploma or the degree in the actual practice of the branch of engineering wherein he is a candidate for a degree

3. Intervals of non-employment in other branches of engineering shall not be included in the above three years. It shall not be necessary that the several periods requisite to make up the said three years be consecutive.

4. Satisfactory evidence shall be submitted to the University examiners as to the nature and length of the candidate's professional experience for the purpose of clauses 2 and 3.

The examiners may satisfy themselves by oral or written examinations in regard to the candidate's experience and competence.

5. The candidate shall prepare an original thesis on some engineering subject in the branch in which he wishes a degree, the said thesis to be accompanied by all necessary descriptions, details, drawings, bills of quantities, specifications and estimates.

The candidates may be required at the option of the examiners to undergo an examination in the subject of this thesis.

6. Notice in writing shall be sent to the Secretary not later than the first day of February, informing him of the degree to which the candidate wishes to proceed and of the title of his proposed thesis for the approval of the examiners.

7. The evidence under clause 4., and the thesis, with accompanying papers, described in clause 5, shall be sent to the Secretary not later than the first day of April.

8. The candidate shall be required to present himself for examination in the month of April at such time as may be arranged by the Examiners.

9. The thesis, drawings, and other papers submitted under clause 7 shall become the property of the University.

10. Nothing in this statute shall prevent any candidate from receiving more than one of the said degrees, provided he has the necessary qualifications for each degree. An interval of three years must elapse between the granting of any two degrees under this statute.

REGULATIONS FOR THE DEGREE OF
DOCTOR OF PEDAGOGY

The degree of Doctor of Pedagogy (D.Paed.) will be awarded under the following conditions:

1. The candidate shall hold an approved degree in Arts or Science or in the applied sciences of Agriculture, Engineering, or Commerce.

2. The candidate shall be in attendance at the Ontario College of Education during three regular College Sessions or four Summer Sessions. A High School Assistant's, First Class, or Second Class certificate valid in Ontario, or a regular Course in an approved training school for teachers will be accepted in lieu of the attendance during one of these regular Sessions or one of the Summer Sessions.

3. The Course shall consist of the four subjects and a thesis as defined in Sections 4 and 5. The subjects may be taken in any order, provided that not more than two be taken in any regular Session and not more than one in any Summer Session. Candidates who, under Section 2, are exempted from attendance during one regular Session or one Summer Session will be exempted also from the instruction and examination in one of the four subjects. Candidates who have been credited with one or more subjects of the B.Paed. course as defined in the regulations of 1921 will be exempted from the instruction and examinations in said subject or subjects.

4. The candidate, after passing the prescribed examinations, shall also submit on or before March 1st a thesis on some educational topic selected with the approval of the Ontario College of Education. In valuing this thesis literary excellence, as well as the discussion of the subject, will be taken into account. After the examiners have reported in favour of the candidate's examinations and thesis, and before the degree of D.Paed. is conferred, the candidate shall furnish the Secretary of the School of Graduate Studies with ten copies of the thesis.

5. Subjects of Instruction and Examination.

(a) The Science of Education, including a study of the philosophical, ethical, and sociological bases of education. (Two papers.)

(b) Educational Psychology. (Two papers.)

(c) The History of Education in Western Europe and North America in modern times, with special reference to Ontario, Great Britain, and the United States. (Two papers.)

(d) Educational Administration in Great Britain, the United States, France, and Germany, with special reference to the administration and organization of education in Ontario. (Two papers.)

6. Candidates registered under former regulations may (a) complete the examinations under those regulations provided that they do so not later

than May, 1923, or (b) transfer to the present Courses. On application before May, 1923, a candidate may be given credit in the new Courses for examinations taken under former regulations provided he has attended a Summer Session or its equivalent in the subject or subjects in which he seeks credit.

REGULATIONS FOR THE DEGREE OF FOREST ENGINEER

The Faculty of Forestry grants the degree of Forest Engineer (F.E.) to the graduates holding the degree of B.Sc F., who, after three years' practical employment in forestry work, present an acceptable thesis, the subject to be approved by the Faculty.

FEES

Doctor of Philosophy.—

Registration and tuition.....	first year	\$25 00
Registration and tuition.....	(second and third years)	45.00
Examination.....		25.00
Degree.....		25 00

If the course is extended over more than three years a registration fee of \$5.00 only for each additional year is required.

Master of Arts:—

Registration and tuition	first year	\$25.00
Each subsequent year.....		5.00
Examination.....		10 00
Degree.....		10.00

Candidates for the Degree of Master of Arts shall pay \$25.00 for registration and tuition for one year of the course. If the course is extended over more than one year a registration fee of \$5.00 only must be paid for each additional year.

Graduate Students not proceeding to a degree—

	For the Session	For the Term
For a course in any one subject, including registration. . .	\$10.00	\$5 00
For a course in more than one subject, each subject including registration.....	9.00	5 00
Maximum Fee.....	45.00	23.00

If any or all of the courses taken by a Graduate student are later accepted by the Board of Graduate Studies as part of the student's course of instruction for the Degree of Master of Arts or Doctor of Philosophy, an additional fee shall be charged, if necessary, to bring the total fees paid for registration and tuition up to the amount paid by a candidate registered for the Degree of Master of Arts or Doctor of Philosophy.

The fee for registration shall be paid by the candidate immediately upon being notified of admission to the course.

If the candidate is required to repeat either examination an additional fee of \$10.00 will be charged.

Doctor of Medicine.—

Master of Surgery:—

Instructional fee for all students enrolled for this Degree who are not holding University or Hospital appointments in this University per annum	\$150 00
Examination	10 00
Degree	10.00

Master of Applied Science:—

Examination and Degree	\$25 00
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Master of Architecture:—

Examination and Degree	\$25 00
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Professional Degrees:—

Civil Engineer
Mining Engineer
Mechanical Engineer
Electrical Engineer
Chemical Engineer

Examination and Degree.	\$20 00
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Doctor of Pedagogy:—

Registration	\$5.00
Tuition, examination, library	10.00
Summer Session	10.00
Examination each subject	3.00
Degree	25.00

Forest Engineer —

Examination and Degree	\$20.00
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FELLOWSHIPS

The University offers annually to qualified students intending to pursue advanced graduate study a number of fellowships, each amounting to \$500, the holders of which will, for the year of their tenure, be entitled to free tuition. Some are confined to special Departments, but those specified in paragraph (1.) below are open to students in all Departments, who are proceeding to the degrees of M.A. and Ph.D. Others are called Tutorial Fellowships because the holders of them are required to give a certain amount of instruction in the class-room or laboratory in elementary subjects, but the time so devoted is small and, accordingly, the holders are given opportunity to pursue their special advanced courses of study.

These Fellowships are as follows:

1. SPECIAL OPEN FELLOWSHIPS.

There are seven of these available to students who undertake to pursue graduate work in any of the courses offered by the Departments of this University for the degrees of M.A. and Ph.D. under the authority of the School of Graduate Studies. The value of each Fellowship is \$500 for one year with free tuition. If the holder of a Fellowship gives satisfactory evidence of progress in his work during the year he may receive the renewal of it for a second year. Preference will be given to candidates who are graduates of the Universities of Canada outside Ontario. Applications together with details of undergraduate courses taken and certificates therefor should be addressed to the Dean of the School of Graduate Studies, not later than the 1st of June.

2. SPECIAL DEPARTMENTAL FELLOWSHIPS.

(a) Alexander Mackenzie Research Fellowships, two in number, of \$500 each for research in the Departments of Political Science, and History, and awarded to graduates of any university, on the recommendation of the committee. Applications for these Fellowships should be addressed to the Head of the Department not later than the 1st of June.

(b) James H. Richardson Fellowship, of \$500, awarded in Anatomy by the Senate on the recommendation of the Professors of Anatomy, Biology and Surgery. Applications for this Fellowship should be addressed to the Professor of Anatomy.

(c) The George Brown Memorial Fellowship, of \$500, awarded in alternate years to the graduate in Medicine of the University of Toronto, who has distinguished himself most in the subjects of Anatomy, Physiology, Biochemistry, Pharmacology, Pathology and Pathological Chemistry, in the undergraduate course. The holder of the Fellowship is expected to devote himself to research in one of the laboratories of the University on some subject bearing on the advancement of medical science.

(d) The Ellen Mickle Fellowship, being the annual income from an endowment of Twenty-Five Thousand Dollars (\$25,000) has been established by the late Dr. W. J. Mickle, to be given to the student (or students) who in the examinations at the end of the fourth year of the Old Course or the fifth year of the New Course in Medicine, shall have taken honours of the first class in at least three-fourths of the subjects of that year, and shall have obtained the highest marks in the examinations. The award will be made to the above referred to student (or students) provided he proceed to the degree of Bachelor of Medicine in this University and spend one year in post graduate study approved by the Council of the Faculty of Medicine.

3. MEDICAL RESEARCH FELLOWSHIPS.

These were established in 1913 through the generosity of a number of the leading citizens of Toronto, for the promotion of Clinical and Labora-

tory Research in the Department of Medicine. Each is tenable for three years, providing that the progress in research made by the holder is satisfactory. The value of the Fellowships for the first year is \$750, and in the senior years may be as much as \$1,000 and \$1,500. Applications for these Fellowships should be addressed to the Secretary of the Medical Research Fellowship Committee.

4. TUTORIAL FELLOWSHIPS.

There are eight of these Fellowships, the holders of which are required to give part of their time to elementary instruction in the class-room or laboratory, and are also to engage in advanced study and research.

These Fellowships are annually awarded in the following Departments: two in Mathematics, three in Physiology and Biochemistry, one in Pathology, and two in Botany.

These Fellowships are open to graduates of any university and the appointments to them are made, on the recommendation of the staffs in the respective Departments, by the Board of Governors.

DEMONSTRATORSHIPS, ASSISTANT DEMONSTRATORSHIPS, AND ASSISTANTSHIPS

Certain of the Departments of Science offer annually to qualified graduates of any University positions as Demonstrators, Assistant Demonstrators, or Assistants, which involve instruction to elementary laboratory classes, but only a certain number of hours per week in each case is required, and the instructors are accordingly free to pursue advanced study and research with the object of qualifying for the degrees of M.A. and Ph.D.

The number of these posts varies from year to year, but for the session 1921-1922 they were, according to Departments, as follows:

Physics, eight Assistant Demonstratorships; Chemistry, fourteen Assistantships; Botany, seven Assistantships; Pathological Chemistry, three Assistantships; Biochemistry, one Demonstrator, four Fellows; Physiology, one Demonstrator, six Fellows.

Applications for these positions should be addressed to the Head of the Department in each case. The honorarium is \$500 or more.

CLASSICS

The departments included under the Classics are four in number: Greek, Latin, Greek and Roman History, Comparative Philology and Sanskrit.

DEGREE OF MASTER OF ARTS

A student who is proceeding to the degree of Master of Arts in accordance with the general regulations must consult the staff in Classics as to the selection of suitable courses of study.

DEGREE OF DOCTOR OF PHILOSOPHY

A graduate student, proceeding to the degree of Doctor of Philosophy, may select any one of the following divisions as his Major:

- Greek Literature.
- Latin Literature.
- Greek and Roman History.
- Greek and Roman Philosophy.
- Comparative Philology and Sanskrit.

All candidates for the degree of Doctor of Philosophy whose major subject lies within the Classics shall give evidence of proficiency in Greek and Latin Prose Composition, or (with the consent of the staff in Classics) in one or other of them, and to this end shall take such courses as the staff may prescribe.

A graduate student will be required, before entering upon more advanced courses, to have taken such of the courses marked below by an asterisk as the staff in Classics may recommend, having regard to the range of work already completed and to the nature of the course of study he expects subsequently to pursue.

No absolute rule is laid down as to the selection of the Minors to be chosen by a candidate whose Major is in one of the classical departments, but one of them at least should be chosen from the remaining subjects in these departments, and the other, if chosen from some different department should have a definite relation to the candidate's major subject. Where both minor subjects are chosen from the departments included under the Classics, one half of the courses constituting the two minor subjects should consist of courses not marked by an asterisk.

COURSES OF INSTRUCTION

I. GREEK.

- *1—Greek Prose Composition.
- *2—Plato, Republic, Bks. I-IV.
- *3—Plato, Republic, Bks. V-X.

- *4—Greek Drama (Aeschylus, Agamemnon; Sophocles, Antigone, Oedipus Rex; Euripides, Bacchae; Aristophanes, Birds, Clouds, Frogs).
 - *5—Aristotle, Ethics, Bks. I-IV, X (6-9).
 - *6—Aristotle, Poetics
 - *7—History of Greek Philosophy (Introductory Course).
 - 8—Plato, Phaedrus, Phaedo, Gorgias Professor Hutton.
 - 9—Plato, Laws. Professor Hutton.
 - 10—Pindar. Professor W. D. Woodhead.
 - 11—Aeschylus. Professor Owen.
 - 12—Sophocles and Euripides Professor Macnaughton.
 - 13—Aristophanes. Professor Langford.
 - 14—Aristotle, Ethics, Bks. V, VI, VII. Professor Brett.
 - 15—Demosthenes, De Falsa Legatione, and Aeschines, De Falsa Legatione with life and career of the orator. Professor Carruthers.
 - 16—The Political and Ethical Thought of Plato. Professor Robertson.
 - 17—The Influence of Greek Thought upon the New Testament. Professor Macnaughton
 - 18—History of Greek Philosophy from Plato to Plotinus. Professor Brett.
 - 19—The Relation between the Metaphysics of St. Augustine and Plato. Professor Carr.
 - 20—Graeco-Roman Literary Criticism with special study of Longinus. Professor Dale.
 - 21—The Greek Conception of the Function of Art in the State. Professor Milner.
 - 22—Greek Archaeology. Professor Carruthers.
- [See also Greek and Roman History, 1, 2, 4, 9, 10, 11].

II. LATIN.

- *1—Latin Prose Composition.
- *2—Roman Satire.
- *3—Virgil, Eclogues, Georgics, Aeneid.
- *4—Horace.
- *5—Roman Elegy.
- *6—Cicero, De Finibus, Bks. I, II; Lucretius, Bk. I.
- 7—The Minor Poems of Virgil. Professor DeWitt.
- 8—Catullus, Tibullus, Propertius, Ovid. Professor Macnaughton.
- 9—Roman Public Life, with the study of selected speeches of Cicero. Professor Smith.
- 10—Roman Literary Criticism with special reference to Cicero's rhetorical writings. Professor DeWitt.
- 11—Roman Stoicism, with special study of Cicero, De Finibus, Bks. III, IV. Professor Robertson.
- 12—Cicero, Academica, and the Eclectic Philosophy. Professor Robertson.

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| 13—Roman Archaeology. | Professor Kirkwood. |
| 14—Latin Epigraphy. | Professor DeWitt. |
| 15—Roman Religion. | Professor DeWitt. |

[See also Greek and Roman History, 5, 6, 15, 16, and Greek 17].

III. GREEK AND ROMAN HISTORY.

- *1—Thucydides, Bks. I-III, VI, VII.
- *2—Herodotus, Bks. VII, VIII, IX.
- *3—Greek History, B.C. 454 to B.C. 399.
- *4—Aristotle, Politics, Bks. I, II, III.
- *5—Tacitus, Annals, Bks. I-VI, and the Principate.
- *6—Cicero, Letters (Watson); Sallust, Catiline; Caesar, Civil War.
- *7—Roman History (to death of Cicero).
- *8—Roman Institutions.
- 9—Thucydides. Professor Sissons.
- 10—Aristotle, Politics. Professor Milner.
- 11—The Public Career of Demosthenes, with the study of De Corona and Aeschines' Contra Ctesiphontem. Professor Carruthers.
- 12—The History of the Pentecontaëty. Professor Sissons
- 13—The Letters of Cicero. Professor Milner.
- 14—The Geography of the Mediterranean World. Professor Cochrane.
- 15—The Second Punic War with a special study of Livy's Third Decade. Professor Kirkwood.
- 16—Interpretation of Greek and Roman History to 476 A.D. Professor Milner.

[See also Latin 9].

IV. COMPARATIVE PHILOLOGY AND SANSKRIT.

- *1—Comparative Philology.
- 2—Introduction to the study of Sanskrit. Professor DeWitt
- 3—Introduction to Oscan and Umbrian. Professor DeWitt

The following are the minor subjects offered in the Classics:*

- A—Greek Literature: Greek, 2, 4, 6.
- B—Latin Literature: Latin, 2, 3, 4, 5.
- C—Greek History: Greek and Roman History, 1, 2, 3, 4.
- D—Roman History: Greek and Roman History, 5, 6, 7, 8.
- E—Greek Philosophy: Greek, 2, 3, 5, 7.
- F—Comparative Philology and Sanskrit, 1, 2, 3.
- G—Greek and Roman Archaeology: Greek, 20; Latin, 13, 14, 15.

*For the courses constituting these minor subjects, equivalent courses may be substituted with the approval of the staff in Classics.

SEMITIC LANGUAGES

DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

DEGREE OF DOCTOR OF PHILOSOPHY

A candidate proceeding to the degree of Doctor of Philosophy in the department of Semitic Languages must give proof of his fitness for advanced study in this department either as being an honour graduate of the University of Toronto or as possessing an equivalent standing in some field of Semitic Philology in a recognized University or College.

A course of study must be elected by the candidate in consultation with the members of the department under whom it is proposed to pursue the major and minor subjects and must be submitted to and approved by the department.

The department will not recommend a student for the degree merely on the ground of faithful study for a definite period but only because of high attainment in such study manifested in the examinations and by the thesis.

The following divisions are offered as Majors:

- Hebrew Language and Literature.
- Aramaic Language and Literature.
- Syriac Language and Literature.
- Assyrian and Babylonian Language and Literature.
- Arabic Language and Literature.

The following Minors are recommended for candidates taking a Major in this department:

- Language cognate to the major subject.
- Greek (Classical).
- Philosophy.
- Hellenistic Greek (Biblical and Patristic).

These Minors shall be chosen in accordance with section (13) of the general regulations. These recommendations do not prohibit other Minors being arranged between the candidate and the department. When a minor subject is elected outside of the department, the candidate must obtain the consent of the department concerned to the choice of such Minor and he shall be subject to the regulations of that department in respect thereto. No student of this department shall be exempt from the written examination on more than one Minor.

COURSES OF INSTRUCTION

1—Hebrew: Prophetical Literature of the Old Testament. One hundred and twenty-five hours.

2—Hebrew: Hebrew Poetical Literature. Seventy-five hours.

3—Assyrian: Elementary Course, Translation of inscriptions of Tig-lathpileser I, Shalmaneser II, Sennacherib (1110—681 B.C.). Fifty hours.

Mr. W. A. Irwin

4—Assyrian: Advanced course, Translation of The Story of the Deluge, Ishtar's Descent to Hades, Hymns and Prayers. Fifty hours.

5—Arabic: Elements of Arabic Language and Simple Texts. Fifty hours.

6—Arabic: Reading of representative selections from Arabic Literature. Fifty hours.

7—Syriac: Introductory Grammar and the translation of easy Prose. Fifty hours.

8—Aramaic: Introductory Palestinian Aramaic with translations from Daniel and Ezra, and the Targums. Fifty hours.

9—History of Israel. Fifty hours.

10—History of Hebrew Literature. Fifty hours.

11—History of Mohammedanism. Twenty-five hours.

12—Semitic Archaeology and Art. Twenty-five hours.

13—Hebrew Lyric Poetry. One hundred hours. Professor Cosgrave.

14—The Social Development of the Hebrews. Fifty hours.

Professor Taylor.

15—The Hebrew Wisdom Literature. Fifty hours.

Professor McLaughlin.

16—Hebrew Prophecy and Apocalypse. Fifty hours.

Professor McLaughlin.

17—Semitic Philology

18—Studies in Arabic Literature. Fifty hours. Professor McLaughlin.

19—Aramaic: The development of the Aramaic Dialects. Twenty-five hours.

Professor Hooke.

20—Semitic Epigraphy. Twenty-five hours.

Professor Hooke.

21—Syriac Patrology.

Professor Hooke.

22—Selections from Syriac Literature

Professor Taylor.

23—Advanced Assyrian. Continuation of Course 4.

Fifty hours.

24—Hellenistic Literature. Fifty hours.

Professor Taylor.

NOTE.—Courses 9 to 12 do not require a knowledge of Semitic Languages.

The following Minors are offered in this department:

Semitic Languages A—Course 1.

“ “ B—Course 2.

“ “ C—Courses 3 and 4.

“ “ D—Courses 5 and 6.

“ “ E—Courses 7 and 8.

“ “ F—Any two of Courses 9 to 12.

“ “ G—Any selection from Courses 13 to 24 involving not less than seventy-five hours instruction.

ENGLISH

DEGREE OF MASTER OF ARTS

Students admitted as candidates for this degree must have graduated with Honours in English at this University, or give evidence of possessing similar qualifications. They are required to be in actual attendance, to cover satisfactorily the work of three of the courses outlined below, and to submit a dissertation on some subject connected with their work.

DEGREE OF DOCTOR OF PHILOSOPHY

Students admitted as candidates for this degree in English are required to be in actual attendance, to cover satisfactorily the work of at least ten of the courses outlined below (or their equivalents), and to submit a thesis: this thesis must, in the opinion of the department, be worthy of publication. They shall further be required to take one Minor from each of the groups (a) and (b) enumerated below.

The selection of Minors, of courses, and of subjects for the thesis must in every case be approved by the department.

COURSES OF INSTRUCTION

The annexed schedule is intended to indicate the general character and the extent of the work required, but equivalent courses may be substituted for those contained in the list. Those courses which are available for the session 1922-23 are marked by an asterisk:

- *1—Old English: Grammar and reading of Selections. Fifty hours.
Professors Clawson and Horning.
- *2—Middle English and Historical Grammar. Fifty hours.
Professors Clawson and Horning.
- *3—Milton and Seventeenth Century Literature. Fifty hours.
Professors Edgar and Wallace.
- *4—The Development of the Drama. Fifty hours.
Professors Edgar, Knox, and Simpson.
- *5—Nineteenth Century Thought: Newman, Carlyle, Mill, Arnold and Ruskin. Fifty hours.
Professors Edgar, Simpson, and Miss Waddington.
- 6—Beowulf. Fifty hours. Professor Horning.
- *7—Chaucer and his School. Fifty hours. Professor Clawson.
- 8—The English and Scottish Ballads Professor Clawson.
- 9—The Arthurian Romances. Professor Horning.
- *10—Shakespeare. Professor Knox.
- 11—Development of the Drama (Advanced Course).
- *12—Bibliography of English Literature. Professor Wallace.

13 and 14—The study of two authors approved by the Department other than those mentioned in this list.

15 and 16—The study of two selected periods of literature other than those mentioned in this list.

*17—Recent English Literature: George Meredith, Thomas Hardy, Joseph Conrad, H. G. Wells, Bernard Shaw, and the chief writers of poetry since 1901
Professor Edgar

The following Minors are recommended for students taking their Major in this department:

Group (a)—Any one of the following courses:

*1—Gothic as an Introduction to the Study of Philology. Fifty hours.
Professor Horning

2—The History of Literary Criticism.

3—English Political Thought. Fifty hours. Professor Kennedy.

*4—The Connection of English and French Literature in the Eighteenth Century.
Professor Edgar.

Group (b)—Any of the Minors offered in Classics, French, German, Italian, Spanish, History, and Philosophy.

Minors in English for candidates who are not taking their Major in English will be arranged on application.

GERMAN

The selection of courses and of theses for the degrees of Master of Arts and Doctor of Philosophy must in every case be approved by the department.

DEGREE OF MASTER OF ARTS

Students admitted as candidates for the degree of Master of Arts in German must cover satisfactorily the work of at least three of the major courses outlined below and must submit a thesis on some subject connected with the work.

DEGREE OF DOCTOR OF PHILOSOPHY

Students admitted as candidates for the degree of Doctor of Philosophy in German must cover satisfactorily the work of at least ten major courses and must submit a thesis which, in the opinion of the department, is worthy of publication. They shall further be required to select two Minors in two approved departments other than German.

Candidates taking their Major in departments other than German may select as a Minor in German any three courses of fifty hours each.

COURSES OF INSTRUCTION

Major courses (fifty hours each).

- 1—Gothic, and Introduction to the Study of Germanic Languages.
Professor Horning.
- 2—The Middle High German Popular Epic: The Nibelungenlied.
Professor Needler.
- 3—History of the German Drama from the Beginning to Lessing
Professor Needler.
- *4—Lessing.
Professor Young.
- *5—Goethe's Autobiographical Prose Writings.
Professor Young.
- 6—Goethe's Faust.
Professor Lang.
- 7—Schiller's Philosophical Writings.
Professor Fairley.
- 8—The German Drama in the Nineteenth Century.
Professor Lang.
- 9—Schopenhauer in Relation to German literature.
Professor Fairley.

Minor courses (fifty hours each).

- 10—A general acquaintance with the German Literature of the Nineteenth Century, with the reading of approved texts.
Professor Lang, Professor Young.
- 11—Middle High German Grammar and Literature.
Professor Horning, Professor Needler.
- 12—The Austrian Drama in the Nineteenth Century.
Professor Lang, Professor Young.
- 13—Goethe and his English contemporaries.
Professor Needler.
- 14—Goethe's political opinions.
Professor Needler.
- 15—Goethe's *Singspiele* and his relation to the art of music in general
Professor Needler.
- 16—Swedish.
Professor Hedman.
- 17—Dano-Norwegian.
Professor Hedman.
- 18—The Dramas of Ibsen
Professor Hedman.
- 19—The Modern German Lyric
Professor Hedman.

*Courses 4 and 5 are not offered in 1922-23.

Note—Other courses, major or minor, will be arranged to meet the individual needs of candidates.

ROMANCE LANGUAGES

DEGREE OF MASTER OF ARTS

The general conditions of candidacy for the Master's degree will be found on page 5. Proposed courses of study and the subject of the thesis (if offered) must receive the approval of the staff in French, or in Italian, or in Spanish, in one of which the candidate must do the major part of his work.

A knowledge of standard classic authors is presupposed.

DEGREE OF DOCTOR OF PHILOSOPHY

A candidate for the degree of Doctor of Philosophy shall select his major and minor subjects under the direction of the staff in Romance Languages in accordance with the general regulations. The major subject shall be chosen from one of the following groups:

- | | |
|---------------------------------|----------------------------------|
| Romance Philology. | Italian Language and Literature. |
| French Language and Literature. | Spanish Language and Literature. |

Both Minors may be selected within the department of Romance Languages. One Minor *must* be selected within the department. If the second minor is selected outside of this department it must be chosen from a department cognate with that of the major subject. In any case the candidate must do some work in each of the four groups named above.

The department will not recommend the conferring of this degree merely because of the completion of a certain programme of studies. Evidence must be exhibited of special aptitude and of high attainment in the field chosen by the candidate. The thesis must be a distinct contribution to the literature of the subject discussed.

A student whose major subject is not in Romance Languages, but who requires a Minor in one of its groups, will be expected to make his choice of such Minor only after consultation with the staff in Romance Languages.

COURSES OF INSTRUCTION

The following courses are offered for students proceeding to the degree of Master of Arts or Doctor of Philosophy.

- 1—Methods of research, bibliography. One hour a week.
Professor Buchanan.
- 2—Introduction to Romance philology. Two hours a week.
- 3—(a) Research in Gallic Vulgar Latin, *or*
(b) Dialectal studies based on the *Atlas linguistique de la France*.
Professor Ford.
- 4—Old Provençal. Prerequisite: course 2. (Not given in 1922-1923.)
- 5—(a) Old French, *or*
(b) Literary doctrines in France since 1549.
Professor de Beaumont.
- 6—(a) The French Renaissance, *or*
(b) The development of French thought and ideals from the Renaissance to modern times.
Professor Will.
- 7—The French drama of the seventeenth century.
Professor Cameron.
- 8—(a) The history of prose fiction in France, *or*
(b) The novel of manners in the Romance countries and in England.
Professor Kittredge.

- 9—(a) French Romanticism, its origins and development, *or*
(b) The literary relations between France and England in the eighteenth century. Professor Moraud.
- 10—A subject from Italian literature of the thirteenth century. Professor Shaw.
- 11—(a) Italian phonology and morphology, *or*
(b) A subject from Italian literature of the Renaissance. Professor Goggio.
- 12—Spanish literature of the sixteenth and seventeenth centuries. Professor Buchanan.

HISTORY

DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations, but, before being admitted, must give evidence of having adequate training for advanced study in History. Subjects of study may be taken from the list given below in respect to the degree of Doctor of Philosophy, but other periods or subjects may be arranged as required.

DEGREE OF DOCTOR OF PHILOSOPHY

Graduate work leading to this degree is offered in the subjects named below, from which a choice of major and minor courses may be made.

Instruction will be given in tutorial groups and candidates must present a thesis of such a character as to constitute an addition to the literature of the subject selected.

LIST OF PERIODS AND SUBJECTS

1. The History of Canada.
2. The American Revolution.
3. The Sixteenth Century.
4. The French Revolution and the Napoleonic Era.
5. Nineteenth Century Europe.
6. The American Civil War.
7. The Working of Modern Political Institutions.

POLITICAL SCIENCE

DEGREE OF MASTER OF ARTS

Candidates for the degree of Master of Arts in the department of Political Science must present evidence of fitness for advanced study in the department, either by having taken special undergraduate courses in Political Science, Commerce and Finance, History, or Philosophy; or by giving such other proof of sufficient knowledge as will justify their

acceptance as advanced students. Each candidate is required to submit, for the approval of the staff in Political Science, on or before the date prescribed in the general regulations in this connection, the title of the thesis proposed. The thesis must be submitted in complete form on or before the 1st May. An oral examination upon the subject of the thesis will be conducted by the staff of the department before the candidate is recommended to the Council of the School of Graduate Studies for the degree.

DEGREE OF DOCTOR OF PHILOSOPHY

Candidates may proceed to the Degree of Doctor of Philosophy in the manner prescribed in the general regulations. They may select their major course from the following list:

Economic History.

Economic Theory.

Public Finance.

Philosophy of Politics.

Constitutional History and Law.

Special subjects cognate to any or all of the above general courses are to be regarded as included under them.

Special postgraduate courses, varying in topics according to the needs of the students, are customarily given by the staff in the department. Importance is attached to individual assistance in the investigation of specific problems. The thesis offered by the candidate must present either the results of an original investigation into some problem and thus form a contribution to knowledge or a critical examination of the results of investigation by others and thus form a contribution to scholarship. One Minor subject must be selected from the lists given above and the other from the subjects offered by the departments of History and Philosophy. In exceptional circumstances candidates may submit for the approval of the department some other subject of study as a second Minor, even though not obviously related to the Major.

An oral examination will be conducted by the staff of the department in the major and in the first minor subject before the candidate is recommended to the Council of the School of Graduate Studies for the degree.

PHILOSOPHY

DEGREE OF MASTER OF ARTS

Candidates for this degree will proceed under the general regulations, to be found on pages 7-9. Except in special cases, candidates will be expected to qualify by pursuing an approved course of study, and passing a satisfactory examination therein.

Candidates for this degree fall into two classes, viz., those who have, and those who have not taken the Honour work in Philosophy for their B.A. degree.

Those who have taken the B.A. degree with honours in Philosophy must select their subjects of study from Courses 8-20, given below. Four courses of study will be required for the degree. Not more than two courses may be selected from any one division of the department. In cases where permission is granted by this department, one subject may be taken from another department or two subjects, provided that one is from the department of Psychology. Subject to the approval of this department a thesis may be substituted for one of the courses.

Those students who have not graduated with honours in Philosophy, will be required, before being admitted as candidates for the degree, to take such preliminary courses, or to furnish such other proof of sufficient knowledge as will justify their admission to graduate courses. They will select their subjects of study in consultation with the staff in Philosophy. The work may be expected to require two years in most cases.

Candidates who furnish evidence satisfactory to the staff of the department of their qualifications for original investigation may with the consent of the department qualify by writing an approved thesis, and taking special work in consultation with the staff in Philosophy (20, I. (b)).

The writer of a thesis will be required to report regularly to the head of the department, and also to the head of the division in which his thesis falls.

DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for this degree must present a thesis embodying the results of independent investigation, of such a character as to make a distinct contribution to the literature of the subject and to show capacity for original research on the part of the writer. The writer of a thesis must report regularly to the head of the department, and also to the head of the division in which his thesis falls.

Students are recommended to complete the work for the degree of Master of Arts as part of the work for this degree.

A candidate who has completed the work for the degree of Master of Arts must take in addition, one course of study in the division in which his first Minor falls, and for the second Minor, must fulfil the requirements of the department in which such Minor is taken. Both Minors must be selected after consultation with the staff in Philosophy.

Divisions of the department: History of Philosophy, Logic and Epistemology, Ethics.

COURSES OF INSTRUCTION

The following courses are offered to graduate students. In each of these courses fifty hours will be required, including lectures and seminar work, and examinations will be held at the close of the course.

GENERAL.

- 1—History of Philosophy. Kant and modern systems. Professor Hume.
 2—History of Modern (chiefly British) Philosophy. Professor Hume.
 3—History of Ancient Philosophy. Professor Brett.
 4—Logic, Deductive and Inductive. Theory of the Judgment. Professor Brett.
 5—Ethics, Kant and Green. Professors Tracy and Lane
 6—Modern Ethics. Professors Tracy and Brown.
 7—Social Ethics. Professors Robinson and Lane.

HISTORY OF PHILOSOPHY.

- 8—Proofs of God's Existence in Modern Philosophy. Professor Hume.
 9—Modern Philosophy, with special reference to the Hegelian Movement. Professor Hume.
 10—(In alternate years with 9) Modern Philosophy, with emphasis on the Anti-Rationalist, Empiricist, and Pragmatist Writers. Professor Hume.
 11—Problems of Modern Philosophy. Individuality and Value. Professor Lane.
 12—Ancient Philosophy from Thales to Plato. Professor Brett.
 13—Ancient Philosophy from Plato to Augustine. Professor Brett.
 14—The relation between the Metaphysics of St. Augustine and Plato. Professor Carr.

LOGIC AND EPISTEMOLOGY.

- 15—Principles and Methods of Modern Thought—Special Subject for 1922-3: Realism. Professor Brett.
 16—Recent discussions in the Theory of Knowledge and Being. Professor Brown.

ETHICS.

- 17—Selected Problems in Ethics. Professor Tracy.
 18—Idealism in Ethical Theory. Professor Tracy.
 19—The Philosophy of Bergson, with emphasis on its Ethical Aspects. Professor Lane.
 20—The Evolution of Morals. Professor Robinson.
 21—Social and Political Ethics. Professor Robinson.

The following Minors are offered in this department for candidates whose Majors lie in other departments:

- Philosophy A—Courses 1 and 2
 Philosophy B—Courses 3 and 12 or 13.
 Philosophy C—Courses 4 and either 13 or 14.
 Philosophy E—Courses 6, and either 5 or 7.

PSYCHOLOGY

DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

Applicants who have not satisfied the staff as to their fitness for advanced work in this department must first take such preliminary work as the staff may recommend. In such cases the time required for the degree will normally be two years.

Candidates may qualify by selecting a course of study comprising not less than three graduate courses of instruction, two of these must be selected from courses named below, and the remainder may be selected from other courses offered in the University. The selection of courses must be approved by the staff of this department.

Candidates who satisfy the department as having special qualifications for original work may be allowed to qualify for this degree by writing an approved thesis (regulation 20, 1. (b)) and by consulting regularly with those members of the staff who supervise the work undertaken.

COURSES OF INSTRUCTION

- | | |
|--|--------------------|
| 1—Psychology of intelligence, character and temperament. | Professor Bridges. |
| 2—Abnormal Psychology. | Professor Bridges. |
| 3—Problems in Clinical Psychology. | Professor Bridges. |
| 4—Introduction to critical analysis. | Professor Bott. |
| 5—Problems in Experimental Psychology. | Professor Bott. |
| 6—Historical development of Psychology. | Professor Brett |

DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for this degree must present a thesis containing the results of an original investigation and showing capacity for independent research.

The major subject and one minor may be selected from Psychology. The second minor may be selected from the minors offered by any other department in the University. The selection of the major and both minors must be made with the approval of the staff of this department. Minors in Psychology for candidates who are not taking their major in Psychology will be arranged on application.

EDUCATIONAL THEORY

DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

Candidates may qualify for the degree by pursuing three approved courses of study. Of these three one must be selected from the M.A. courses specified below, one from the courses offered by another depart-

ment of the University, and the third from the courses offered in this or any other department of the University. The selection of courses must be approved by the staff of this department.

Every candidate for the degree is required to present a thesis embodying the results of some special study or original investigation.

The time required to complete the requirements for the degree will normally be two years.

DEGREE OF DOCTOR OF PHILOSOPHY

Courses leading to the degree of Doctor of Philosophy are offered to students qualified under the general regulations. Candidates may elect to take their major subjects in any of the sections A to D below. Of the minors one may be selected in the subjects offered below; one must, and both may, be chosen from minors offered in other departments of the University. The minors are also open to candidates whose major subject lies in another department.

The thesis submitted must be a distinct contribution to knowledge and show capacity for original research.

COURSES OF INSTRUCTION

A. *Educational Administration:*

- | | |
|--|----------------|
| 1. Educational Administration in Canada. | Dean Pakenham. |
| 2. Educational Administration in other countries: England, France, Germany, Denmark and the United States. | Dean Pakenham. |
| *3. Educational Administration in Ontario. | Dean Pakenham. |

B. *History of Education:*

- | | |
|---|-----------------------|
| 4. History of Education in Great Britain during the nineteenth century. | Professor Macpherson. |
| 5. History of Education in Ontario during the nineteenth century. | Professor Macpherson. |
| *6. The Foundations of Modern Public Education. | Professor Macpherson. |

C. *Educational Psychology:*

- | | |
|---|----------------------|
| 7. Physiological Psychology. | Professor Sandiford. |
| 8. The Learning Process. | Professor Sandiford. |
| 9. Fatigue—its nature and measurement. | Professor Sandiford. |
| *10. The Original Nature of Man. | Professor Sandiford. |
| *11. The Psychology of Elementary and High School Subjects. | Professor Sandiford. |
| *12. Statistics applied to Education and Psychology. | Professor Sandiford. |

D *The Principles of Education:*

13. The Contributions made to Educational Theory by Philosophy.
Professor Sandiford.
- *14. School and Society. Professor Sandiford.

Note—Courses indicated * are M.A. courses and minors.

MATHEMATICS

DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

DEGREE OF DOCTOR OF PHILOSOPHY

A candidate proceeding to the degree of Doctor of Philosophy in this department may select his major subject from any of the branches of Mathematics after consultation with the staff.

The thesis submitted for the degree must give evidence of original investigation and must constitute a distinct addition to the knowledge of the subject.

COURSES OF INSTRUCTION

The following courses of instruction are open to graduate students:

- 1—Differential Calculus. Fifty hours. Professor Fields.
- 2—Integral Calculus. Fifty hours. Professor DeLury.
- 3—Differential Equations. Fifty hours. Professor Fields.
- 4—Theory of Functions. Fifty hours. Professor Beatty.
- 5—Theory of Functions of a Real Variable. Fifty hours.
Professor DeLury.
- 6—Advanced Theory of Functions of a Complex Variable. One hundred hours.
Professor DeLury.
- 7—Theory of Algebraic Functions and Abelian Integrals (Based on Riemann, Noether, etc.) Fifty hours. Professor Fields.
- 8—Theory of Algebraic Functions and Abelian Integrals (Methods of the lecturer). Fifty hours. Professor Fields.
- 9—The Algebraic Theory of Algebraic Functions of one Variable. Twenty hours. Professor Beatty.
- 10—Theory of Elliptic Functions. Fifty hours. Professor Fields.
- 11—Calculus of Variations. Fifty hours. Professor Fields.
- 12—Determinants and Theory of Matrices. Fifty hours.
Professor Fields.
- 13—Theory of Rational Numbers. Fifty hours. Professor Fields.
- 14—Theory of Algebraic Numbers including the theory of the ideals. Fifty hours. Professor Fields.

- 15—Theory of Substitutions. With applications to Algebraic Equations. Fifty hours. Professor DeLury.
- 16—Theory of Continuous Groups. Fifty hours. Professor Beatty.
- 17—Theory of Sets and Transfinite numbers. One hundred hours. Professor Beatty.
- 18—Infinite Series. Fifty hours. Professor Beatty.
- 19—Differential Geometry. Fifty hours. Professor Synge.
- 20—Elliptic Functions. Fifty hours. Professor Pounder.
- 21—Actuarial Science: Frequency Curves and Correlation, Measurement of Groups and Series. Fifty hours. Professor Mackenzie.

Candidates taking a Major in Mathematics may select as one Minor any of the above courses except Nos. 1 and 2. The second Minor may be selected from any of the Minors offered by departments of the University other than Mathematics:

Courses Nos. 1 and 2 constitute a Minor in Mathematics (Mathematics A) for departments other than Mathematics, Physics, and Astronomy. The department is prepared to offer other Minors which must be arranged by consultation with the staff in Mathematics and the staff of the department in which the major subject lies.

PHYSICS

DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for admission to the Degree of Doctor of Philosophy must have a competent knowledge of Mathematics and Chemistry.

Candidates may proceed to the Degree of Doctor of Philosophy in this Department in either of the following major divisions:—

Experimental Physics.

Mathematical Physics.

COURSES OF INSTRUCTION

- 1—The Electromagnetic Theory of Light and the Electron Theory of Matter. Fifty lectures. Professor McLennan.
- 2—Atomic Structure and the Origin and Characteristics of Spectra. Twenty-five lectures. Professor McLennan.
- 3—Mathematical Theory of Electricity and Magnetism. Fifty lectures. Professor Burton.
- 4—Elasticity and Elastic Solid Theory of Light, Polarisation. Fifty lectures. Professor Burton.
- 5—Properties of Matter. Fifty lectures.

Professor Satterly.

- 6—Advanced Heat and Thermodynamics. Fifty lectures.
Professor Satterly.
- 7—Theory of Optics. Fifty lectures. Professor Gilchrist.
- 8—Theories of Radiation, including Photoelectricity and other illustrations of the Quantum Theory. Twenty-five lectures.
Professor McLennan.
- 9—The Principle of Relativity with applications to Radiation and the Electron Theory. Twenty-five lectures. Professor McLennan.
- 10—Modern Theories of Magnetism. Twenty-five hours.
Professor McLennan.
- 11—The Physical Properties of Colloidal Solutions. Twenty-five lectures. Professor Burton.
- 12—Vector Analysis. Twenty-five lectures. Professor Burton.
- 13—Generalized Coordinates and their application to Physical Problems. Twenty-five hours. Professor Burton.
- 14—Radioactivity. Twenty-five lectures. Professor Satterly.
- 15—Vapour Pressure, Osmotic Pressure and Related Phenomena. Twenty-five lectures. Professor Satterly.
- 16—Theory of Measurements. Twenty-five lectures.
Professor Satterly.
- 17—Acoustics, Fourier's Series and its applications to Physics. Twenty-five lectures. Professor Gilchrist.
- 18—Wave Motion in Elastic Media. Twenty-five lectures.
Professor Gilchrist.
- 19—Geometrical Optics. Thirty-five lectures. Professor McTaggart.
- 20—Hydromechanics. Twenty-five lectures. Professor McTaggart.
- 21—Modern Optical Instruments, with an introduction to practical computing. Twenty-five hours. Professor McTaggart.

Note—Laboratory work in the majority of the above courses will be offered, but such work will not count for more than twenty per cent. of the whole course.

22—Physics Seminar. This organization consisting of all instructors, graduate students, and advanced students in the department meets fortnightly on Thursdays from 4.15 to 6 o'clock for the discussion of recent research.

Candidates for the Degree of Doctor of Philosophy taking their major subject in either Experimental or Mathematical Physics may select but one Minor from the department of Physics. This Minor may be either one of Courses 1, 2, 3, 4, 5, 6, 7, or two of Courses 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21. The second minor may be selected from Mathematics, Astronomy, Chemistry A, B, C, D, E, or Mineralogy A, B, C, Geophysics, Physical Botany.

The following Minors are available in the Department:

Physics A—One of Courses 1, 2, 3, 4, 5, 6, 7.

Physics B—Two of Courses 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21.

ASTRONOMY

DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

DEGREE OF DOCTOR OF PHILOSOPHY

This department is not prepared at present to accept candidates for the degree of Doctor of Philosophy.

The following Minors are available for candidates taking their Major in other departments:

Astronomy A—The Application of Physical Methods to Astronomical Problems. Fifty lectures. Professor Chant.

Astronomy B—Spherical Astronomy, including the use of the Nautical Almanac and exercises in computing. Forty lectures. Professor Chant.

BIOLOGY

DEGREE OF MASTER OF ARTS

Graduate work leading to the degree of Master of Arts is offered in the various subjects enumerated below under "Courses of Instruction". Except in special cases, candidates will be expected to qualify in accordance with Section 20, 1. (b) of the regulations.

DEGREE OF DOCTOR OF PHILOSOPHY

Graduate work leading to the degree of Doctor of Philosophy is offered in the divisions indicated, subject to the following conditions:

1—Students electing major work must possess adequate qualifications for beginning work of a graduate character in the major subject, must be able to search the literature in the modern foreign languages, and must possess a competent though elementary knowledge of Physics and Chemistry. For the final examination a knowledge of the general field of Biology will be considered necessary. The thesis must include an original contribution to the knowledge of the subject.

2—Students electing major work must have their entire course of study approved by the instructor in charge of the major subject.

3—Students electing major work may not select more than one Minor out of the subjects separately listed as Minors for this Department.

4—Students electing minor work must have their selection approved by the instructor in charge of the subject.

5—The standing to be attained in a minor subject shall be understood to be in general equivalent to Honour standing in the four-hour course of a corresponding subject of the Fourth Year undergraduate course, except in special cases in which (a) exemption or part exemption from one Minor may be granted to students who already have competent knowledge of the subject, or (b) other requirements may be made depending on the previous training of the student.

Major work is offered in the following subjects:

Vertebrate Zoology.	Histology.
Invertebrate Zoology.	Embryology.
Limnobiology.	Animal Genetics.
Marine Biology.	Comparative Neurology.
Entomology.	

COURSES OF INSTRUCTION

1—†General Biology: A course of lectures and conferences on the general problems of Biology. The Staff in Biology.

2—*Vertebrate Zoology: A laboratory course of 100 hours on the system, morphology and distribution of the Vertebrates.

Professor Bensley.

3—*Invertebrate Zoology: A laboratory course of 100 hours on the system, morphology and distribution of the Invertebrates.

Professor Walker.

4—*Limnobiology. A course on the system, morphology and oecology of fresh-water organisms, with special reference to fishery problems.

Professor Clemens.

5—†Marine Biology: Special research on the oecology of marine organisms.

Professor Huntsman.

6—†Entomology: A course on the morphology, classification and oecology of the Insects, with special research; in conjunction with Course 3.

Professor Walker.

7—†Animal Histology. A laboratory course of 100 hours on animal histology and cytology including histological technique.

Professor Piersol.

8—*Microscopic Anatomy of Vertebrates: A laboratory course of 100 hours including histological technique.

Professor Piersol.

9—*Vertebrate Embryology: A laboratory course of 100 hours on the general embryology of Vertebrates.

Professor Piersol.

11—*Animal Genetics. A course on the principles and problems of Heredity, Variation and Breeding of Animals.

Dr. MacArthur.

12—*Comparative Neurology. A course on the composition of the nervous system in the mammalia and lower vertebrates. Dr. Craigie.

13—*Experimental Embryology: a course on the history, methods and results of experimental embryology. Professor Coventry.

Note—Courses indicated* are offered as Minors, or in conjunction with advanced work, literature, problems and research in a special division of the field as Majors.

Courses indicated † are offered as Minors only.

Courses indicated ‡ are available as Majors only, and must be taken in conjunction with the subjects specified.

Except for the conditions mentioned above (Sections 1-4), no restrictions are imposed with reference to the selection of major and minor subjects. Students are advised, in making a preliminary choice of subjects, to keep in view the possible requirements of their future fields of work.

BOTANY

DEGREE OF MASTER OF ARTS

Graduate work leading to the degree of Master of Arts is offered in the various subjects enumerated below under "Courses of Instruction". Except in special cases, candidates will be expected to qualify in accordance with Section 20, 1. (b) of the regulations.

DEGREE OF DOCTOR OF PHILOSOPHY

Graduate work leading to the degree of Doctor of Philosophy is offered subject to the following conditions

1—Students electing major work must possess adequate qualifications for beginning work of a graduate character in the major subject, and must possess a competent though elementary knowledge of Physics and Chemistry. For the final examination a knowledge of the general field of Biology will be considered necessary. The thesis must include an original contribution to the knowledge of the subject

2—Students electing major work must have their entire course of study approved by the instructor in charge of the major subject.

3—Students electing major work may not select more than one Minor from the list enumerated below.

4—Students electing minor work must have their selection approved by the instructor in charge of the subject.

5—The standing to be attained in a minor subject shall be understood to be in general equivalent to Honour standing in the four-hour course of a corresponding subject of the Fourth Year undergraduate course, except in special cases in which (a) exemption or part exemption from one Minor

may be granted to students who already have competent knowledge of the subject, or (b) other requirements may be made depending on the previous training of the student.

Major work is offered in the following subjects.

- Morphology of Cryptogams.
- Morphology of Phanerogams.
- Plant Anatomy.
- Plant Oecology.
- Plant Physiology.
- Plant Pathology

COURSES OF INSTRUCTION

1—*Cryptogamic Botany I: A lecture and laboratory course of 100 hours on the system and morphology of the Liverworts, Mosses, Ferns and fern allies. Professor Faull.

2—*Cryptogamic Botany II: A lecture and laboratory course of 100 hours on the system and morphology of the Algae, Fungi, and Slime-moulds. Professor Faull.

3—*Mycology: A special course on the system, morphology, and biology of the Fungi. Professor Faull.

4—*Morphology of Phanerogams: A laboratory course of 100 hours on the morphology of Angiosperms, Gymnosperms and related fossil forms. Professor Thomson.

5—†Anatomy of Gymnosperms: A special course on the comparative anatomy of the Gymnosperms; in conjunction with Course 4. Professor Thomson.

6—*Plant Physiology: A lecture and laboratory course of 100 hours on the physiology of plants.

7—*Oecology and Plant Geography: A course of 100 hours on plant associations, the adaptations of plants to environmental factors, and geographical distribution.

8—*Palaeobotany: A special course on fossil plants. Research in conjunction with course 5. Professor Thomson.

9—*An experimental and seminar course on the principles of genetics. Professor Thomson.

10—*Plant Pathology Professor Faull.

11—*Structural Oecology. A lecture and laboratory course of fifty hours and research in conjunction with Courses 4 and 5.

Professor Thomson.

12—*Poisonous Plants: 100 hour lecture and laboratory course.

Note—Courses indicated* are offered as Minors, or in conjunction with advanced work, literature, problems and research in a special division of the field as Majors.

Courses indicated ‡ are available as Majors only, and must be taken in conjunction with the subjects specified.

Except for the conditions mentioned above (Sections 1-4), no restrictions are imposed with reference to the selection of major and minor subjects. Students are advised, in making a preliminary choice of subjects, to keep in view the possible requirements of their future fields of work.

ZYMOLOGY

DEGREE OF MASTER OF ARTS

Candidates for this degree will be required to show that they have reached the standard for the degree of B.A., or its equivalent, in at least two of the following subjects: Biochemistry, Organic Chemistry, Physiology, Plant Physiology or Plant Pathology. Courses of study for Major and Minor work are enumerated below. Students taking Zymology as their Major subject will be required to undertake some piece of research in the Department and to submit a thesis.

DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for this degree will be required to show that they possess a competent knowledge of Organic Chemistry and Animal or Plant Physiology. A knowledge of general Biochemistry is desirable before proceeding to undertake advanced research work in Zymology. Candidates are recommended to choose Minors in accordance with the Regulations from the following:

- Biochemistry, 2, 4.
- Plant Physiology, Botany, 6.
- Physiology, 1, 3, 5.
- Organic Chemistry, 1, 2.
- Mycology, Botany 3.

COURSES OF INSTRUCTION

1. *General Bacteriology*: A lecture and laboratory course in bacteriological theory and technique. Special attention will be given to the laboratory methods involved in the industrial applications of yeasts, moulds and bacteria. Facilities are provided for conducting some of these processes on a semi-commercial scale.

2. *Applied Zymology*: A lecture course on the practical methods obtaining in those industries dependent on the life processes of yeasts, moulds and bacteria.

3. *Enzyme Chemistry*: A lecture course dealing with recent advances in enzyme chemistry.

Course 1 is offered as a Minor.

ANATOMY

DEGREE OF MASTER OF ARTS

Either of the minor courses described below may be taken as leading to the degree of Master of Arts. Course 3 is also open to those who have covered the ground represented by the Minors.

DEGREE OF DOCTOR OF PHILOSOPHY

The work required of candidates for the degree of Doctor of Philosophy with a Major in Anatomy will be principally the preparation of a thesis based upon an investigation of some anatomical problem, together with the reading of the literature cognate to the research.

As a preliminary requirement it will be necessary that the candidate shall have taken a course in General Biology and courses in Vertebrate Anatomy (Biology Course 2), Histology (Biology Course 8) and Embryology (Biology Course 9). The last two may be taken as a Minor.

The following divisions lead to the degree of this department:

Anatomy.

Anatomy of the Nervous System.

Vertebrate Embryology.

Candidates taking Anatomy as a Major are recommended to select their Minors from the departments of Anatomy, Zoology, Physiology, Biochemistry, and Pathology.

COURSES OF INSTRUCTION

The following courses of instruction are offered by the department:

1—Human Anatomy. Laboratory and lectures. Thirteen hours a week throughout the year. Professor McMurrich and Dr. Watt.

2—Anatomy of the Nervous System. Lectures and Demonstrations. Sixty-four hours. Professor McMurrich.

3—Advanced Human Anatomy and Embryology. Laboratory and reading. Open only to those who have taken Courses 1, and 2.

Professor McMurrich and Dr. Watt.

The following Minors are offered by the department:

Anatomy A—Course 1.

Anatomy B—Course 2.

BIOCHEMISTRY

DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations. All candidates who have not previously taken the course of lectures and laboratory work in advanced Biochemistry (Biochemistry 2 and 4) or its equivalent, will be required to take this course.

DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for the degree of Doctor of Philosophy are required to submit a thesis which constitutes a distinct addition to the knowledge of the subject, and of such value as to merit publication in one of the leading scientific journals.

Candidates for the degree of Doctor of Philosophy in this department who do not intend taking Physiology as a minor are reminded that the relationship between these two Sciences is so intimate as to render a knowledge of the elements of mammalian physiology extremely advisable. Candidates are furthermore reminded that mathematics is becoming of very great importance in the investigation of the chemical phenomena of life, and they are strongly urged to acquire a knowledge of elementary differential and integral calculus and of statistical methods.

Students taking their major in Biochemistry may select their minors from any other division of graduate study offered by the University. The following subjects of study are, however, suggested as appropriate adjuncts to the study of Biochemistry:

- Anatomy.
- Bacteriology.
- Biology.
- Botany.
- Chemistry.
- Histology.
- Household Science.
- Mathematics.
- Pathological Chemistry.
- Pathology.
- Pharmacology.
- Physics.
- Physiology.
- Psychology.
- Zymology.

Candidates for the degree of Doctor of Philosophy who desire to take a minor in Biochemistry will be required to pass an examination covering the field comprised in Courses 1, 2, 3 and 4.

COURSES OF INSTRUCTION

- 1—General Biochemistry. Ninety Lectures.
- 2—Advanced Biochemistry. Sixty lectures.
- 3—A Laboratory Course in General Biochemistry. One hundred and twenty hours.
- 4—A Laboratory Course in Advanced Biochemistry.

PHYSIOLOGY

DEGREE OF MASTER OF ARTS

Candidates for the degree are accepted under the general regulations. All candidates will be required to show credits for courses 1, 3 and 4 of this department or their equivalent. Courses 1 and 4 must be completed before entering upon the work for the M.A. degree, but Courses 2 and 5 may be taken simultaneously.

COURSES OF INSTRUCTION

The following courses of instruction each extending throughout the session are offered:

1. Systematic lectures; two a week during second and third years
 - (a) General and neuro-muscular physiology.
 - (b) Physiology of circulation, respiration, digestion and reproduction.
 - (c) Metabolism, the functions of the ductless glands and reproduction.
 - (d) Physiology of the central nervous system and special senses.
2. Lectures in General Physiology.
3. Advanced lectures; two a week (third year—optional).
4. General Laboratory courses (total 135 hours).
5. Laboratory course in General Physiology.
6. Advanced Laboratory courses (optional).
7. Research in Physiology.
8. Journal Club; one hour a week.

DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for the degree of Doctor of Philosophy are required to submit a thesis which constitutes a distinct addition to the knowledge of the subject, and of such value as to merit publication in one of the leading scientific journals.

Candidates for the degree of Doctor of Philosophy in this department who do not intend taking Biochemistry as a minor, or have not already taken the undergraduate courses in this subject are reminded that these two sciences are so intimate as to render a knowledge of general Biochemistry extremely advisable. They should at least take courses 1 (General Biochemistry) and 4 (a laboratory course in General Biochemistry) of the Department of Biochemistry. A general course in experimental Pharmacology is also almost essential. Certain courses in Biology, which should include vertebrate histology and cytology (12) vertebrate (14) and structural neurology (16) are of importance. A good training in Physics such as that mapped out for the honour degree in Physiology and Biochemistry is required. Similar courses in Mathematics are also required save in exceptional circumstances. Certain other courses in Physics are recom-

mended. Students taking their major in Physiology may select their minors from any other division of graduate study offered by the University. The following subjects are suggested as appropriate, their relative importance as adjunct to the study of Physiology being indicated in a general way by the order in which they stand:

Biochemistry (1 and 4).

Biochemistry (3 and 6).

Pharmacology.

Histology and Cytology (12 or 13 Biol.).

Neurology (16 Biol. and 4 Anat.).

and one or more of the following:

Embryology (14 Biol.).

General Biology (13 Biol.)

Mathematics.

Pathological Chemistry.

Physics 7, 19, 21, 25.

Psychology.

When Physiology is taken as a minor, courses 1 and 4 are required as detailed above.

FOOD CHEMISTRY

DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

COURSES OF INSTRUCTION

1—The Chemical Nature of the Constituents of Foods. Lectures and laboratory work.

2—Fundamental Studies of Nutrition. Lectures and laboratory work.

PATHOLOGY AND BACTERIOLOGY

DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for the degree of Doctor of Philosophy are required to submit a thesis which constitutes a distinct addition to the knowledge of the subject, and of such value as to merit publication in one of the leading scientific journals.

Candidates in this department may proceed to the degree in either of the following major divisions:

Experimental Pathology.

Bacteriology, including Immunology.

As these two departments are closely inter-related candidates are reminded that either major division may necessarily include considerable work in the other and that consequently neither can be accepted as a minor.

Candidates taking Experimental Pathology are reminded that a prerequisite for the study of experimental pathology is a knowledge of Physiology and those who do not propose taking Physiology as a minor must show credits of undergraduate work of honour standing.

Candidates taking Bacteriology and Immunology must similarly take Biochemistry or Pathological Chemistry as a minor or show credits of honour undergraduate standing in these subjects.

The following subjects are suggested as minors:

Physiology 1 and 4.
 Biochemistry 1 and 4.
 Pathological Chemistry 1, 3 and 4.
 Chemistry 4 and 5.
 Biology 1 and 8.
 Physics 9 and 18.
 Botany 2 or 3.

The following courses are offered as minors:
 Bacteriology.

1—A laboratory course of one hundred and thirty-five hours in the principles and technique of Bacteriology and the application of this subject to Medicine, and an additional twenty hours of demonstrations dealing with the fundamental phenomena of inflammation.

Professor J. J. Mackenzie.

Assistant-Professor H. B. Maitland.

2—A course of lectures, fifty hours, in Immunology.

Professor J. J. Mackenzie.

Assistant-Professor H. B. Maitland.

General Pathology.

1—A course of lectures. Fifty hours. Professor J. J. Mackenzie.

2—A laboratory course. One hundred and twenty hours.

Professor J. J. Mackenzie.

PATHOLOGICAL CHEMISTRY

DEGREE OF DOCTOR OF PHILOSOPHY

Candidates proceeding to the degree of Doctor of Philosophy in this department must cover the field of Pathological Chemistry in addition to the investigation of some selected problem.

Students taking their Major in this department are recommended to select their Minors from the following:

Chemistry, A or C.
 Biochemistry and Physiology, A or B.
 Pathology.

COURSES OF INSTRUCTION

- 1—General Pathological Chemistry. Thirty lectures.
 - 2—Special Pathological Chemistry. Fifteen lectures
 - 3—Elementary Laboratory Course. Sixty hours.
 - 4—Advanced Laboratory Course. Sixty hours.
- The following Minor is offered by the department:
 Pathological Chemistry A—Courses 1, 3 and 4.

CHEMISTRY

DEGREE OF MASTER OF ARTS

A student who is proceeding to the degree of Master of Arts in accordance with the general regulations must consult the staff as to the selection of suitable courses of study.

DEGREE OF DOCTOR OF PHILOSOPHY

The thesis submitted for the degree of Doctor of Philosophy in this department must constitute a distinct contribution to the knowledge of the subject.

The following major divisions leading to the degree are offered:

- Organic Chemistry.
- Physical Chemistry.

Candidates taking a Major in either of these divisions may not select as Minors Chemistry A, C, or E. The following Minors are recommended:

Major subject—Organic Chemistry.

Minors—Chemistry D.
 and

Bio-chemistry A, Pathological Chemistry A, or Botany 6.

Major subject—Physical Chemistry.

Minors—Chemistry B and Mathematics A.

COURSES OF INSTRUCTION

The following courses of instruction are open to graduate students. The selection of any of these courses presupposes an adequate knowledge of elementary Chemistry.

1—Systematic Organic Chemistry. Fifty lectures. (Open only to students who have already attended a preliminary course). Professor Allan.

2—Practical Organic Chemistry. Seventy-five hours.

3—Advanced Organic Chemistry: Heterocyclic Compounds, Synthetic Methods, Stereochemistry. Fifty lectures. Professor Allan.

4—Physical Chemistry. Fifty lectures. (Open only to students who have already taken a preliminary course and have had instruction in the calculus.) Professor Kenrick.

5—Practical Physical Chemistry. Seventy-five hours.

6—Advanced Physical Chemistry: The Phase Rule and Chemical Thermodynamics. Seventy-five lectures. Professor Miller.

7—Inorganic Chemistry: A course of reading on topics selected with reference to the major subject. The candidate must give evidence of proficiency in chemical analysis.

8—Chemical Theory. Sixty hours.

9—Mathematical Chemistry. Sixty hours.

The following Minors are offered by this department:

Chemistry A—Courses 1 and 2.

" B—Course 3.

" C—Courses 4 and 5.

" D—Course 6.

" E—Course 7

GEOLOGY AND PALAEONTOLOGY

DEGREE OF MASTER OF ARTS

Candidates for the degree of Master of Arts are accepted in this department under the general regulations.

DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for the degree of Doctor of Philosophy are required to submit a thesis which constitutes a distinct addition to the knowledge of the subject. In addition to the necessary preparation in Geology, a candidate must possess an adequate knowledge of the cognate sciences—Biology, Chemistry, Physics, and Mineralogy.

The following divisions constitute Majors in this department:

Geology.

Stratigraphical Geology and Palaeontology.

Economic Geology.

COURSES OF INSTRUCTION

The courses of instruction open to graduate students are given below. None of these courses, as part of either a Major or a Minor, may be taken by a candidate without a preparatory knowledge of the subject:

1—Dynamical and Structural Geology. Fifty lectures.

Professor Coleman.

2—Invertebrate Palaeontology. Fifty lectures on Morphology and Classification.

Professor Parks.

3—Practical Invertebrate Palaeontology. Seventy-five hours.

Professor Parks.

4—Archaean Geology. Twenty-five lectures.

Professor Coleman.

5—Glacial Geology and Physiography. Twenty-five hours.

Professor Coleman.

6—Economic Geology. Fifty lectures.

Professors Coleman and MacLean.

7—Stratigraphical Geology. Seventy-five hours lectures and laboratory.

Professor Parks.

8—Mining Geology. Twenty-five lectures.

Professor Coleman.

9—Practical Economic Geology. Fifty hours

Professor MacLean.

10—Metamorphism. Twenty-five lectures.

Professor Coleman.

11—Geological Climatology. Twenty-five lectures.

Professor Coleman.

12—Stratigraphy and Palaeontology of Canada. Fifty lectures.

Professor Parks.

13—Geological Seminar. One hour per week.

14—Field work. (a) Pleistocene Geology, two weeks; (b) Archaean Geology, two weeks; (c) Palaeozoic Geology, two weeks.

Candidates pursuing a Major in any of the divisions of the department may select one but not two Minors from the departments of Geology and Mineralogy combined. The following Minors are recommended for candidates taking a Major in this department:

MAJOR.

Geology.

Stratigraphical Geology and
Palaeontology.

Economic Geology.

MINORS RECOMMENDED.

Mineralogy A, B, or C, *and*
Chemistry E or Biology 3.

Geology A or C, or Mineralogy A
and Chemistry E, or Biology 1, 3,
or 11.

Geology A or B or Mineralogy A
or C. *and* Chemistry C, or
Physics A or B.

The following Minors are offered by the department:

Geology A—Courses 1, 4, and 5.

Geology B—Courses 2, 3, and 7.

Geology C—Courses 6, 8, and 9.

MINERALOGY

DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

DEGREE OF DOCTOR OF PHILOSOPHY

In addition to the necessary preparation in Mineralogy proper, a candidate for admission to Mineralogy as a Major must possess an adequate knowledge of the cognate sciences—Chemistry, Physics, and Geology.

The thesis submitted for the degree must indicate that the candidate has made a distinct contribution to the knowledge of his subject.

COURSES OF INSTRUCTION

- 1—Systematic Mineralogy. A course of twenty-five hours lectures and twenty-five hours laboratory. Professor Parsons.
- 2—Morphological Crystallography. A course of twenty-five lectures. Professor Walker.
- 3—Blowpipe Analysis and Determinative Mineralogy. Seventy-five hours laboratory. Professor Thomson.
- 4—Determinative Mineralogy. Fifty hours laboratory in continuation of No. 3. Professor Thomson.
- 5—Practical Crystallography. Seventy-five hours crystal measurement, drawing, projection, etc. Professor Parsons.
- 6—Physical Mineralogy. A course of twenty-five lectures and twenty-five hours laboratory. Professor Walker and Assistants.
- 7—Petrography. Twenty-five hours lectures and laboratory. Professor Walker.
- 8—Advanced Petrography. Twenty-five lectures. Professor Walker.
- 9—Petrography. Fifty hours laboratory. Professor Walker.
- 10—History of Mineralogy. Twenty-five lectures. Professor Walker.
- 11—Optical Mineralogy. One hundred hours. Professor Walker.

The Minors offered by this department are not available for candidates taking Mineralogy as a Major. For such candidates the following Minors are recommended:

Geology A, or Geology B, or Geology C.
and
Chemistry C, or Chemistry E.

The following groups of courses constitute Minors in this department:

Mineralogy A—Courses 1, 2, 3, 4 and 6.

Mineralogy B—Courses 1, 2, 5, 6 and 9.

Mineralogy C—Courses 1, 2, 6, 7, 8 and 9.

It is assumed that the candidate possesses a general acquaintance with the subject before entering on his studies as outlined above.

HYGIENE AND PREVENTIVE MEDICINE

DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for the degree of Doctor of Philosophy in this Department are required to submit a thesis, which constitutes a distinct contribution to the knowledge of the subject. The work required will be that necessary for the preparation of the thesis and a study of literature cognate to the subject under investigation.

The following Major Divisions leading to the degree are offered:

Hygiene.

Preventive Medicine.

Candidates taking their Major in this department are recommended to select their minors from the Departments of:

Physiology.
Biochemistry.
Biology.
Chemistry.
Zymology.
Physics.

HOUSEHOLD SCIENCE

DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

DEPARTMENT OF SOCIAL SERVICE

THE DEPARTMENT OF SOCIAL SERVICE

In 1914 the University of Toronto established, in its Department of Social Service, the first university training school in Canada for social workers; and in 1920 it founded the first university chair of Social Science.

The Department, in planning its courses, has in view the following kinds of student:

1. Those intending to make social service a life work.
2. Those already doing some form of social work, but desiring more knowledge, either in their own or some related subject, or in the general setting of social service.
3. Volunteer workers wishing to increase their effectiveness and understand the problems with which they come in contact.
4. Those desirous of exercising their trusteeship on committees of social agencies, or administrative boards.
5. Those wishing to know more about the problems of the community to which they owe the responsibility of citizenship.

Classes are open to men and women, for full time or part time attendance.

THE SOCIAL SERVICE BUILDING

Is at the corner of the East Entrance to the University grounds, on the north side of College Street, just west of University Avenue. Its Library, through the generosity of the McCormick Estate, possesses a good and growing collection of books, reports, periodicals, and bulletins on social subjects. Students pay a library fee of \$1.00, and the use of the library and reading-room is extended to social workers. The staff welcomes enquiries for information on social matters, and does its best to meet them.

THE DIPLOMA COURSE

The Diploma Course is covered in two years, but a certificate can be given on satisfactory completion of one year's work.

ADMISSION

A. *Full-time students* will be admitted on the following qualifications:

1. Graduation from university or college. This, though not essential, is the most desirable preparation for entrance; both from the point of view of the work itself, and for eventual leadership in social service.

Graduates may be given exemption for certain first year subjects, if they have taken them in their undergraduate course, and may be admitted into the continuation subjects of the second year.

2. Matriculation is the minimum entrance requirement. The Department is open to consider applications from non-matriculants, but only if their experience has been educationally (not necessarily academically)

more than equal to matriculation. Wherever possible, those who intend to train for social service should at least complete their matriculation.

3. Applicants with previous experience of social work will have special consideration, if they show sufficient general training to be able successfully to handle the work, and if their experience has been such as to give reasonable warrant of their fitness for the vocation.

4. Only in special cases will students be admitted over 35 or under 21.

(a) Applicants over the age limit will be admitted if their social experience and prospects of successful training warrant.

(b) Intending applicants under the limit are urged to spend one or more years in university work, giving voluntary service in settlements or clubs. The Department will gladly assist, if desired, in the choice of courses, looking to the time when students leaving school intending to train for social work (but not to follow a degree course), will take two years of selected courses in the University, thus completing with the Diploma a carefully planned 4 years of university education.

5. The full time work of the second year is open to those who have completed the requirements of the first year, or who have taken its equivalent in an accepted institution elsewhere.

6. Intending applicants who wish to take advantage of the interval before entering can be advised as to reading or practice; such preliminary work is always an advantage.

7. Application forms may be obtained from the Secretary, to whom they should be returned as soon as possible.

8. All full-time students are admitted on probation. Any student who is, in the opinion of the staff, very unlikely to succeed in social work, will be advised to withdraw.

B. *Part-time students* are admitted to any course or courses (except where otherwise specified) without question, unless the accommodation for the class is filled. Admission to certain courses of the Second Year requires evidence of sufficient previous knowledge to be able to follow the instruction.

FEES

The tuition fee for the regular full-time course is \$40 for each year.

First instalment, if paid in October \$20 00

Second instalment, if paid in January 21.00

The fee for part-time students is \$5 for each regular course covering two terms and \$2.50 for one term.

All fees are payable to the Bursar of the University in advance. After October 31st, a penalty of \$1 per month will be imposed until the whole amount is paid. In the case of payment by instalments the same rule as to penalty will apply. A student will not be admitted to any of the University lectures or laboratories who is in arrears for his fees.

The Library fee of \$1 is payable at the beginning of the session to the Librarian of the Department.

SPECIAL LECTURES

Special courses of lectures have in many cases been arranged for special purposes. For example, in 1921-22, this Department co-operated with others in the University in a course of lectures on Housing and Town Planning, arranged by Professor Berrington of the Department of Architecture for an audience of architects and engineers. In the same way the Department joined the Canadian School of Missions in a course for missionaries on furlough. A course on Social Hygiene, dealing with the moral and psychological, medical, legal, and educational aspects of the problem, was given for the Social Hygiene Council of the city of Hamilton. Three lectures, designed to give a clear idea of the meaning of social service in the light of modern philanthropy, were given to the graduating class of Bishop Strachan School.

Single lectures to which the public are invited, are given from time to time. In 1921-22, meetings were held for three distinguished visitors, Professors Muirhead and Holborn, and Mr. Mansbridge.

COURSES OF INSTRUCTION

In each year the training falls into three parts:

I. Courses in the fundamental conditions and principles of social life and development.

II. Courses in the specific conditions and problems of social service

III. Field Work, which provides by actual contact and practice (a) experience in the methods of social work, (b) the illustration of lecture courses, (c) a widening of the students understanding of living and working conditions, (d) an outlet for the essential impulse towards service.

The work is built up of: (a) apprentice work giving carefully graded experience under the supervision of agencies selected for the training facilities which they offer, (b) conferences in which this practice work and its implications are discussed, (c) observation in agencies and institutions—such observation being correlated with lecture courses, conferences and practice work.

The types of work for which students are trained, fall into two main divisions, according as it is devoted to: (a) individuals (families), or (b) groups (clubs and classes). It is possible, under the direction of the staff, to stress either type in accordance with the student's desire and aptitude; and in the second year there is wider opportunity of choice.

But the course is planned in the belief that a thorough training for any kind of social work must be based on the study both of the whole social organisation, and of individual and family problems. It is highly desirable that the student should gain a working knowledge of the leading forms of social service, in whatever form his future work may lie.

A special option is provided in:

BOYS' WORK

Instruction and practice in methods of boys' work is given to students who wish to specialise, as part of the Diploma Course.

In addition there was started in 1920 (at the request of, and with the co-operation of, the chief boys' work agencies), a two-year course for men looking to social and religious leadership in boys' work, in view of the constantly extending field for better trained men. Most of the work is done in the Department, including courses on Society and the Boy, and the Principles and Methods of Boys' Work, given by Dr P. R. Hayward, which are added to the regular studies in Economics, Psychology, The Social Treatment of Poverty, Community Organization and English. Students also take the course in Public Speaking in Victoria College. Instruction is given in Religious Education for those who desire it, by various denominations, e g, a special course was given by Professor Langford in Victoria College, and the arrangement will be continued with the newly-organized Department of Religious Education of Victoria and Knox Colleges. In the same way instruction was provided for Roman Catholic students, a special course in Ethics being given by the Rev. J. E. Burke, of Newman Hall.

In the session 1922-3 field work arrangements will be made on the general plan outlined above in *Courses of Instruction III*, adapted to boys' work.

We have been extremely fortunate in enlisting the services of men of high qualifications, and the development will be watched with sympathetic interest by all boys' work agencies. For practice work the students will be under the direction of Brother Barnabas, the Rev. C. M. Wright, and Mr. Raymond Conlogue, with the assistance of a number of supervisors in charge of boys' work in the city.

MEDICAL-SOCIAL COURSE

This course is arranged for the Nurses' Training Committee, and is taken by the nurses of the city hospitals in their third year, under the supervision of Miss Emory. It is designed to give nurses some acquaintance with specialized forms of nursing service, and with the general perspective of social work. Lectures are given one hour weekly through the session:

1. Ideals and methods in modern social work.

The place of medical, and medical-social work, in the general field of community service. 4 lectures by Professor Dale.

2. Public Health Nursing: 15 lectures by leading exponents of the various branches.

3. The social background: poverty, housing, education, recreation, industry. 6 lectures by Professor Dale.

RANKING

In Written Work the pass mark is 60% on the total of all papers and 50% on each paper

First Year students may be conditioned in two subjects if their general average is 60% or over.

Second Year students may be conditioned in two subjects if their general average is 70% or over.

In Field Work students are classified A, B, C, and D.

For a pass in either year a minimum standing of C is required. Standing is based on:

1. Weekly reports.
2. Attendance at all assignments.
3. Reports from supervisors and agencies.

Final Ranking.—On the combined results of practical and theoretical work students are classified:

Class I.—75% or over.

Class II.—60% or over

INFORMATION

For further information address *The Department of Social Service, University of Toronto*. Those who are within reach will find a personal consultation at the office desirable.

COURSES OF INSTRUCTION

FIRST YEAR

I.

1. SOCIAL ECONOMICS.

A course on the elementary principles of economics; value, utility, wealth individual and national, the relation of wealth to welfare, competitive and anti-competitive forces; followed by certain applications to the problems of the wage-system and its alternatives, trade-unionism, unemployment, women in industry, juvenile labour, conditions of industrial work, and the distribution of wealth and poverty.

PROFESSORS MACIVER AND JACKSON.

2. PSYCHOLOGY.

The meaning, point of view and methods of psychology. Consciousness and the unconscious. The aspects of mental development (a) sensation and association of ideas, (b) habit and instinct, (c) emotion and sentiment. Mental conflict and character.

MISS BANHAM.

3. SOCIAL ETHICS.

The course will deal with the basal conceptions in Ethics, and their application to the problems of personal conduct and social relations. The

basis of morals in human nature, the influences of heredity and environment; standards, motives, and sanctions of conduct; moral education; the sphere of morals in community life.

PROFESSOR ROBINSON

II.

4 THE SOCIAL TREATMENT OF POVERTY.

A course dealing with the technique of social case-work (investigation, diagnosis and treatment). The main causes of poverty and their inter-relations (ill-health; low wages; unemployment; physical, mental or moral defects; industrial accidents; old age, widowhood; desertion; large family). Public and private relief agencies and their relation. The Social Service Exchange.

MR. STAPLEFORD.

5. COMMUNITY ORGANIZATION.

The nature and development of social forms, associations and institutions, within community. The extension and development of community life. Its focal points: home, school, church, club, union, the organization of industry; of philanthropy. Experiments in social organization, the community centre, the health centre, the "city unit", the garden city, etc.

PROFESSOR DALE.

6. HYGIENE AND PUBLIC HEALTH.

A lecture course dealing with the principles of Public Hygiene, including a discussion of preventable diseases and preventable deaths. The communicable diseases are classified and their modes of infection and methods of control, elucidated. Community control of Tuberculosis, Venereal Diseases and Infant Mortality are emphasized. Industrial Hygiene, Vital Statistics and the activities of Governmental and Voluntary Health Promoting Agencies are considered.

PROFESSOR FRASER.

7. THE ESSENTIALS OF CASE-WORK. DISCUSSION COURSE,

Case treatment of Special types. Study of Social Agencies and their relations. The use of Social data. The Survey Method.

MR. STAPLEFORD.

8. CHILD WELFARE.

The development of the principles and methods of child welfare, including the study of legislation. Preventative measures in relation to the normal child, the dependent, defective, delinquent and neglected child are discussed and explained. Modern accepted standards in child welfare are examined.

MR. BRYCE.

9. RECREATION AND PLAYGROUND WORK.

The playground and recreation centre movement, history, organization and administration. The playground supervisor. Community organization and recreation. Mental, moral and physical value of recreation.

Part of the course will be devoted to the practice and teaching of organized games, folk dancing and musical games, suitable for both adults and children.

MISS HODGKINS.

10. PROBLEMS OF RURAL LIFE.

A course designed to show the important relationship between country and city life. The purpose aimed at is to discuss the symptoms, causes and suggested remedies for rural unrest as evinced in rural migration and other phenomena of country life. The work of various agencies in dealing with country life will be outlined, and a constructive programme for rural community building suggested. The course will conclude with a review of the outstanding books written on the subject.

MR MACLAREN.

11. SOCIETY AND THE BOY.

A study, based upon an investigation of individual boys, of the effects of our social institutions on boy life. The home, church and Sunday school, public school, social and industrial conditions; recreational facilities. Students taking this as part of a full-time Boys' Work course will be in charge of actual groups or clubs of boys.

DR. HAYWARD.

12. LITERATURE.

The intention is to share an hour a week in the pleasure and refreshment of literature. Much of the time will be devoted to reading aloud prose and verse, chosen for its beauty and truth. No rigid syllabus will be followed. The guides will be the taste of the leaders, and the interest of the class. There will be no examination.

PROFESSOR DALE AND DR PRATT.

III

13. FIELD WORK (DISCUSSION COURSE).

Relation of Field Work to lectures. Consideration of current events in social work. Special weekly assignments and related reading. Receiving students' written and verbal reports. Occasional discussions, led by representative social workers, which will give students vocational guidance, a wider understanding of local community organization, and a sense of sharing in the unity of social work.

MISS MCGREGOR.

SECOND YEAR COURSES

Courses under I are required of all full-time students. One course must also be selected under II. Additional courses may be selected by the student in consultation with the department

I.

14. SOCIAL EVOLUTION.

Primitive society, types and stages. Early kinship and marriage relations. Family, clan, tribe and nation. The evolution of institutions. The various modes of competition and co-operation. Various conceptions of the state and society, with special reference to contemporary discussions and experiments in reconstruction.

The psychological bases of social evolution: the instincts in society, self-realization and repression; personality and community; the individual and his environment; adaptation and maladjustment.

PROFESSOR DALE.

15. PSYCHOLOGY.

Man in society. the herd instinct,— suggestion, sympathy, imitation Work and fatigue, play and recreation. Education and re-education. Adolescence. Crime, abnormality and insanity, psycho-analysis

MISS BANHAM.

16. EVOLUTION OF MODERN INDUSTRY.

A course dealing with the Industrial Revolution, tracing the development of modern capitalism, the factory system, associations of capital and of labour, industrial legislation, and explaining in general the social and political reactions of modern industrial changes.

MR. BLADEN.

17. INDUSTRIAL LEGISLATION.

Modern tendencies in the industrial order. State-help and self-help. Canadian movements. The principle of minimum standards, in wages, hours and working conditions. Development of social insurance throughout the world. Unemployment. Industrial casualties. Sickness. Old age. The framing of laws. Their administration

PROFESSOR MACMILLAN.

18. SOCIAL ETHICS.

The ethical development of society, and the relation of the individual to it; nature of social progress and the forces controlling it; the relation of the individual to the state, and the grounds of civic obligation; modern social conditions and problems in their ethical aspects.

PROFESSOR ROBINSON.

19. CASE WORK: SEMINAR.

The social case-work method, with particular reference to its application to child welfare work. The technique of child placing Study of

standards of social work for neglected, dependent, delinquent and illegitimate children. Study of child-caring institutions. Admissions and field work. Ontario Child Welfare legislation.

MR. STAPLEFORD.

II.

20. MENTAL TESTING.

Relation of experimental psychology to the measurement of intelligence. History of mental tests. Problems of standardization. Norms and variations. The Binet-Simon scale with revisions. Application of methods to juvenile and adult intelligence. Correlation of mental abnormality with moral delinquency. Discussion of social problems involved.

DR. PRATT.

21. IMMIGRATION.

Motives for migration; countries receiving immigrants; supervision and control; "old" and "new" immigration; race in industry; relation of immigrants to wage-rates, the trade-cycle and unemployment; Asiatic immigration.

DR. INNIS.

22. HOUSING

Historical introduction. Social and industrial aspect. Attempts at solving the problems (a) in England; (b) in America. The garden city. The garden suburb. The stabilization of land values—(a) by zoning; (b) by taxation. Civic beautification versus housing. Community and individual gardens. The fundamental principles of town planning. The necessity for a Town Planning Act.

MRS. DUNINGTON-GRUBB.

23. PSYCHIATRY.

Definitions of fallacious sense perceptions, such as hallucinations, illusions, delusions, etc. Symptoms—Cause and treatment of mental diseases. Mental deficiency, epilepsy, heredity. Clinical demonstrations and examinations. History and case taking. Relations of Social work to psychiatry.

DR. E. K. CLARKE.

24. THE INDUSTRIAL REHABILITATION OF THE HANDICAPPED.

(a) The history of society's attitude towards the handicapped from the dawn of civilization to the present day.

(b) Employment problems—sickness, old age, bodily injury, mental defect, unbalance in the personality, deterioration through unemployment and underemployment, lack of training, boy labour in industry.

(c) The philosophy and psychology of occupation for the institutionalized and the home-bound. Vocational training.

(d) The adjustment of the handicapped to industrial conditions within the community. The study of capabilities and disabilities, the technique of job analysis, placement and follow-up work.

MR. BURNETTE.

25. BOY BEHAVIOUR AND METHODS OF BOYS' WORK.

(a) The physical, mental, social and religious development of the boy through the various stages of life.

(b) Plans and programmes of work.

DR. HAYWARD.

III.

2. FIELD WORK.

It is expected that in the second year the student's impulse towards service has become articulate and that a definite branch of work may be selected. Field work for the Diploma student will, therefore, give such opportunity as facilities permit for this intensive experience, and thus for the building up of technique. It will also aim to develop a proper sense of perspective in relating this chosen work to social work generally.

MISS MCGREGOR.

**DEPARTMENT OF PUBLIC HEALTH
NURSING**

THE DEPARTMENT OF PUBLIC HEALTH NURSING

This new Department began its work in September 1920, and is a school in which graduate nurses may obtain training for public health nursing. We are thus helping to prepare a new occupational group called into existence, by the emphasis now being put upon organized health work in all civilized countries.

Extensive public health programmes are being formulated in every Province of the Dominion of Canada, programmes set forth by many agencies both public and private, but all alike in that they include work which is to be carried on by nurses. It is, therefore, imperative that facilities for the training of such nurses should be provided in this country. In Canada it has been assumed that the usual three years hospital training is a pre-requisite for a public health nurse, but, at the same time, it is realized that that hospital training alone cannot equip the nurse for this task. She must add to it some specific training for this highly specialized branch of work. Nurses have felt that often they have brought serious discredit upon their profession by attempting this new work while unprepared for it. Of necessity, the pioneers have had to train in the bitter school of experience, for there was no other training available, but that is too expensive and wasteful a method to be prolonged unduly. Into this breach the University has stepped and now offers this eight months of special training to graduate nurses who wish to prepare for the public health field.

The question comes from many sides, "What is a Public Health Nurse, and what are her duties?" She is simply a nurse who, in conjunction with the public health doctor, is directing her energy to the teaching of health and the prevention of disease. Both the public health doctor and the public health nurse are being trained to work back from sickness and physical defect to a study of their causes and thence to a study of the means of prevention, in order that they may teach, and may apply in the community, those means of prevention. The nurse is usually the connecting link between the public health administrator and the people whom he would reach with his health teaching and health legislation. Her work lies in the home, the school, the factory and the clinic.

The establishment of the Department of Public Health Nursing in the University has been made possible by the generous assistance of the Ontario Branch of the Canadian Red Cross Society, which organization has undertaken to meet the expenses of the new Department for a period of three years.

NEEDS OF THE PUBLIC HEALTH FIELD

The developments in this work during the last few years have been so remarkable that we would emphasize the opportunities which it offers to well trained nurses. The school nurse is increasingly in demand for both town and country schools; and the same demand is growing for the community nurse who, usually as a member of the local Health Officer's staff, will carry on various forms of health work. Perhaps the most frequent service asked from the community nurse is in connection with the work of Infant Hygiene, starting with that other specialties are added to her work, the scope of which varies considerably in different localities.

There are also many teaching and executive positions open to nurses but these positions all demand a very highly qualified woman. General education, technical training and personality are all of such importance that there are as yet few women fully prepared to meet the demands of this ever widening field. This is a piece of work which offers unbounded opportunities for interesting and valuable service, and the University of Toronto has much to offer to the student who wishes to prepare for it.

ADMISSION REQUIREMENTS AND INFORMATION

1. Applications for the Session 1922-1923 are now being received. Preference will be given to early applications.

Only fifty students will be accepted for this class.

2. All students who desire to enter this Department must present evidence of a three years high school education, or of a private school education fully equal to that. Deficiencies in high school education, if not too great, may be made up by taking certain courses before entering the Department. Preference will be given to those applicants who have obtained a Junior Matriculation standing. Exception to the above ruling may be made in favour of nurses who have been engaged in public health nursing for two years or more.

3. All students must present evidence of certain professional training in nursing, as follows: Applicants from Canadian Provinces, or other States or Countries, in which registration for nurses is enforced, must be registered. Applicants from Canadian Provinces, or other States or Countries, in which registration for nurses is not available, must be eligible for membership in the Canadian National Association of Trained Nurses.

4. Students must be not more than 35 years of age when entering the Department. Exception may be made in favour of nurses who have been engaged in Public Health nursing for two years or more.

PART TIME STUDENTS

Part time students will be received up to a reasonable number if, in the estimation of the instructor, they do not interfere with the work of the full time students. Part time students may take one or more selected lecture courses. Credits will be allowed to such students for work done.

GENERAL INFORMATION

Applicants should understand that this course demands their full time for the eight months of the academic year, and that it is quite impossible to take the full course and carry on any other professional work at the same time.

It is a difficult matter to arrange this course to include all that is desirable in such a short time. The University and the City of Toronto have so much to offer to the keen student that she will have to choose wisely in order to keep her work within reasonable bounds. The Director will have special office hours for consultation with the students in order that all may have help and advice when they need it.

Applicants are also warned that the demands of this course are such that only those in good physical health can do the work. In addition, it should be understood that the work of the public health nurse is likely to be hard and taxing, and that nurses who are not in good condition physically cannot hope to meet the requirements of this branch of work.

Our unfortunate carelessness in the use of words has led to a confusion in the minds of the public between the work of the public health nurse and that of the professional social worker in the sense in which the latter term has come to be accepted. Hence, the would-be student has sometimes applied to us, confused and quite uncertain as to which University Department she wishes to enter, the Department of Public Health Nursing or the Department of Social Service. The purposes of the two Departments are quite distinct.

The Department of Public Health Nursing is preparing the student for one thing only, and that is health work. If the nurse wishes to join the forces of preventive medicine and fit herself to work under any public health administrator, this Department will give her the required training. A study of the curriculum will explain the trend of the teaching.

If the applicant wishes to do general social work, and, for that purpose, to make a study of social science and social organization, then she must enter the Department of Social Service.

None but nurses may enter the Department of Public Health Nursing. The Department of Social Service is not limited to any one occupational group, and nurses may register there if they so wish, and are able to meet the entrance requirements.

STUDENTS WITH PREVIOUS PUBLIC HEALTH EXPERIENCE

The Department finds that nurses who have already been engaged in public health work are now seeking the special training which was not available in the past. If such students enter the Department, special care will be taken in planning their practical work. No student will be required to do field work which she has already covered under satisfactory conditions. She will receive credit for that, and as far as time and opportunity allow, specially selected work will be arranged to take its place.

This information applies to nurses who have been working with a Visiting Nurse Association.

FEES

The tuition fee for the regular full time course is \$50 if paid in October. After October a penalty of \$1.00 a month will be imposed until the whole amount is paid.

A fee of \$2.00 will be paid by all students who wish to use the main Library of the University.

A fee of \$1.00 must be paid by all students for the use of the Department Library at No. 8 Queen's Park

The fees for part time students will be:

For a course in any one subject for the Session.	\$5 00
For a one term course (15 hours)	\$.3 00

EXPENSES

There is no University residence for the students of this Department. Board and lodging may be obtained in the vicinity of the College buildings from \$10.00 per week upwards.

The students must be prepared to meet a small expenditure for carfare while doing field work. Ten dollars should cover that for the entire year.

Text books may be bought at the University Book Room. Copies of all prescribed text books will be kept in the Department Library, but each student will wish to own copies of these if possible.

DIPLOMA AND EXAMINATIONS

A Diploma will be granted to all students who have completed the required work of the Department. Each student will be required (1) to do satisfactory class work throughout the year, (2) to receive a satisfactory report upon her field work, and (3) to make the required pass mark upon the final examinations of the Department.

Supplemental examinations in the work of this Department will be held in September if necessary.

BUILDINGS

The offices of the Department are located in the building occupied by the Department of Medicine at No. 1 Queen's Park. The students are sharing the use of the lecture rooms, reading rooms, and library in the Social Service Building at No. 8 Queen's Park.

LIBRARY

The general Library of the University is contained in a separate building situated on the East side of the campus. Students may use that Library upon payment of the usual fee of \$2.00 to the Bursar of the University.

The Department of Social Service has, in its own building, a valuable branch library, the use of which has been extended to the Public Health Nursing students.

For the convenience of the students the prescribed text books, magazines, and pamphlets belonging to the Department of Public Health Nursing are housed in the reading rooms of the Department of Social Service.

The Public Library of Toronto is situated at the corner of St. George and College Sts., about three minutes walk from the University buildings. Any student may have the free use of its books; it is only necessary to have a card of recommendation signed by a Toronto householder.

PHYSICAL TRAINING

Classes in physical training for the women students of the University are given at the Household Science Building. These include gymnasium and swimming instruction. The students of the Department of Public Health Nursing are admitted to those classes upon payment of the usual fee of four dollars.

FRENCH

There is a definite need in Ontario, Quebec, and New Brunswick for public health nurses who speak French fluently. Last year several requests for nurses with that qualification remained unfulfilled. Because of this need, the Department will make every effort to arrange for French classes in the Faculty of Arts. Such arrangement, however, will only be made for students who have already a fair knowledge of French and who appear able to carry this extra work.

CURRICULUM FOR THE DIPLOMA OF PUBLIC HEALTH NURSING

The Department offers to its students a general training course in Public Health Nursing, its theory and practice. It is hoped thus to prepare nurses to serve effectively in any public health organization, whether the work be administered under a provincial or local health department, a provincial or local department of education, a visiting nurse association, or other local health association.

The work of the student is divided into two parts: (1) Theoretical—consisting of lecture courses and class work, and (2) Practical work, which in such courses is commonly called field work.

Students will be expected to complete satisfactorily the required term work of the course before being allowed to write the final examination.

The academic year is divided into two terms of approximately sixteen weeks each. In the one term about fourteen hours weekly will be occupied with lecture and class work, and about eight hours weekly with hospital clinics and observation of the health and social organizations of Toronto. In the second term the student will devote a large proportion of her time to practical work, under supervision, with the local health organizations and during that second term about eight hours a week will be reserved for lecture and class work. The order in which the work of the two terms is given to the students will be reversed for each of the two sections into which the class will be divided.

LECTURE COURSES

The courses fall into three groups:

- I. Major Subjects.
- II. Short Courses—Partly given for the purpose of reviewing the ground-work which the nurse has already covered; partly to give the new nurse-teacher additional subject matter not usually included in the curriculum of the hospital training school. These courses are not meant to entail much additional reading on the part of the student.
- III. Electives—Recommended to Matriculants.

I.

1. Public Health Nursing . . MISS RUSSELL AND SPECIAL LECTURERS

Lectures, excursions, prescribed reading and conferences. The course deals with the organization and administration of public health nursing, special fields, principles, methods, and technique. Six of the special branches of this work, viz., Child Hygiene, School Nursing, Tuberculosis Nursing, Venereal Disease Nursing, Industrial Nursing, and Hospital

Social Service are dealt with in some detail by special lecturers, the lecturer in each case being a nurse who has specialized in the work of that particular field.

2. Preventive Medicine and Hygiene . { PROFESSOR FITZGERALD
(including Sanitary Engineering) { PROFESSOR GILLESPIE
{ DR J GRANT CUNNINGHAM

Aims of Preventive Medicine, brief historical review of the development of the subject to the present time.

Preventable diseases and preventable deaths; volume and kind of present mortality and morbidity. Classification of communicable diseases. Incidence, etiology, modes of transmission and methods of control of communicable diseases. Methods of dealing with special public health problems, such as maternal and infant mortality, tuberculosis, venereal diseases, etc., problem of the degenerative diseases and cancer. Industrial hygiene, occupational diseases, workman's compensation. Public health centres and clinics. Vital statistics, public health education and publicity. Public health organization and administration. Sanitary engineering problems, community and home sanitation.

2a. Elementary Bacteriology.

A laboratory course of about 24 periods.

3. Nutrition and Dietetics . . . MISS A. L. LAIRD

The course includes a discussion of the essentials of an adequate diet, the nutritive values of common food stuffs, food costs as compared with food values, the planning of dietary budgets for individual and family groups with special reference to economic and social conditions.

4. Social Work—Principles and Practice . . . MR. F. N. STAPLEFORD

A brief survey of social disabilities, and the modern methods adopted for their prevention and relief, with a study of the principles governing these methods. The case method of dealing with problems of social disability. Various types of social agency; the co-ordination of these agencies.

II.

1. History of Nursing . . . MISS RUSSELL

An historical setting for the consideration of present day nursing problems. The hospital training school, the rise of the modern educational system and its recent developments in England, the United States and Canada. New fields of work for nurses, and the educational problems associated therewith. Professional organization in Canada. State registration of nurses.

2. Medicine: five short lecture courses and clinics at the Out-patients' Departments of the general hospitals and of the Hospital for Sick Children:

a. Paediatrics and Infant Hygiene... . DR. ALAN BROWN

b. Venereal Diseases DR. GORDON BATES

c. Tuberculosis. PROFESSOR GRAHAM
DR. H. C. PARSONS
DR. J. H. ELLIOTT

d. Obstetrics, with special reference to Ante Natal Work
DR. GORDON GALLIE

e. Communicable Diseases. In this last case {
the teaching will be given in connection { DR. BEVERLEY HANNAH
with bedside clinics. { DR. C. E. RAE

3. Dentistry DR. WALLACE SECOMBE

A short lecture course, illustrated with charts and lantern, covering the more important dental problems as they affect the nurse. The subject is approached particularly from the preventive side, and includes development and dietetic influences, proper use and care of the teeth, mastication and toilet of the mouth. The diseases of the teeth and surrounding tissues, and the relation of these to general health, are discussed, along with simple remedies for the relief of pain.

4. Psychiatry. DR. ERIC CLARKE

The history of mental disorders and the nature of mental disease and defect. The various types are dealt with, showing the course, symptoms, diagnosis and treatment. The course also covers Mental Hygiene procedure in the community, in the schools, hospital treatment, etc. Lantern lectures are included in the series. Clinical work is arranged at the psychiatric clinic of the Toronto General Hospital.

5. Community and School Nursing.

a. School Medical Inspection and School Hygiene. . DR. J. T. PHAIR

b. Rural School Problems and their Health Application. . DR. J. T. PHAIR

6. Principles of Teaching, with subject matter for {
teaching of Personal Hygiene. { MISS RUSSELL
DR. EDITH GORDON

III

1. Social Economics PROFESSOR JACKSON

This course will consist of an introduction to some practical economic problems bearing directly upon social welfare; such as changes in the cost of living and in standards of life, labour organization, methods of arbitration and conciliation, unemployment and its remedies, social insurance against unemployment, sickness, invalidity and accident, workmen's compensation, the minimum wage.

2. Public Speaking—

A brief course providing instruction and practice under supervision.

3. French—

Only for advanced students, and depending upon the demands of the individual time table.

FIELD WORK

This work is arranged with the various health organizations of Toronto as follows:

(a) A certain number of hours per week for several weeks with the Toronto Department of Public Health.

(b) A certain number of hours per week for several weeks with the Victorian Order of Nurses.

(c) Special selected work. So far facilities for this have been provided by the Social Service Department of the Toronto General Hospital, the Toronto Department of Public Health, the Nursing Departments of several Industrial firms, and the Tuberculosis Sanatorium at Weston.

In addition to the above, it is hoped that the students may have opportunity for practice work at a rural centre during the coming session.

The health organizations of the city and the province form the laboratories in which the students of this Department must carry on their study of public health nursing, the work and the worker. The student who approaches her field experience as a piece of individual research work will reap a greater benefit than the one who would enter merely as an apprentice to learn the technique of this work. However, a certain general technique that is common to all forms of Public Health Nursing may be learned during this time in the field.

Students are asked to give very careful consideration to the following information concerning field work.

1. The Department is dependent upon the courtesy of these health organizations for this work for its students, therefore any stipulations made by those organizations must be observed without questioning.

2. Difficulties of arrangement in such work may make slightly unusual demands upon the time of the students.

3. No street uniform is worn by the students, but certain dress regulations have been imposed by the organizations providing field work, and must be observed by the student *while doing field work*.

(a) A tailored cloth suit or long coat must be worn, and with that a wash blouse or wash dress.

(b) For the work with the Victorian Order of Nurses it will be necessary for each student to provide herself with a full length apron to be worn while in the sick room. A linen laboratory coat is very suitable for this purpose.

(c) No fur coats, fur trimmed coats, fur collars, or muffs may be worn.

(d) Only plain tailored hats and walking shoes with straight moderate heels may be worn.

4. Boston bags are provided for the use of the students while on duty.

5. No exceptions can be made to these rules, and all students entering the Department must be prepared to obey them.

CURRICULA AND REGULATIONS

FOR DEGREES AND DIPLOMAS.

LAW,
DENTISTRY,
PHARMACY,
AGRICULTURE,
PHYSICAL TRAINING,
VETERINARY SCIENCE.

CURRICULUM IN LAW

Notice is hereby given that a new curriculum in Law is under preparation to become effective in the session 1924-1925, which will replace the present curriculum for the degrees of LL.B. and LL.M.

DEGREE OF BACHELOR OF LAWS

Candidates for the degree of LL.B. must have:

- (a) produced satisfactory certificates of conduct;
- (b) matriculated in the Faculty of Law;
- (c) passed the prescribed examinations;
- (d) attained the age of twenty-one years.

Any person having the degree of Bachelor of Arts or of Master of Arts in the University of Toronto; or any person having the degree of Bachelor of Arts or of Master of Arts of an approved University; or any person who has been admitted to the Bar by the Law Society of Upper Canada, may enter the Department of Law at the Third Year of the course of study in that Department; but prior to presenting himself for the final examination in the course of the degree of LL.B. he shall pass in addition to the examinations of the Third and Fourth Years in the Department of Law, the following examinations in the Faculty of Arts, viz.:—

1. ENGLISH CONSTITUTIONAL HISTORY: Honour examinations of the Second and Third Years.
2. ENGLISH CONSTITUTIONAL LAW: Honour examination of the Third Year.
3. COLONIAL CONSTITUTIONAL LAW: Honour examination of the Third Year.
4. ROMAN LAW: Honour examination of the Third Year.
5. HISTORY OF ENGLISH LAW. Honour examination of the Third Year.
6. POLITICAL ECONOMY: Honour examinations of the *Second or †Third Year.
7. JURISPRUDENCE: Honour examination of the Fourth Year.
8. INTERNATIONAL LAW: Honour examination of the Fourth Year.
9. CANADIAN CONSTITUTIONAL HISTORY: Honour examination of the Fourth Year.
10. FEDERAL CONSTITUTIONAL LAW: Honour examination of the Fourth Year.

*Calendar of the Faculty of Arts, 1922-1923, Political Economy 5, 6, pp. 95, 96.

†Calendar of the Faculty of Arts, 1922-1923, Political Economy, 9a, 10, p. 96.

Any person who has been admitted as a student-at-law by the Law Society of Upper Canada and who is a candidate for the Second Year Examination as required by the Law Society may enter the Department of Law at the Third Year, but the results of his examination of the Third Year will be withheld pending the announcement by the Law Society of the results of the Second Year Examination. Such a candidate may present himself for examination in the prescribed Arts subjects during the Third and Fourth Years of the Law course.

Undergraduates in the Faculty of Arts, who intend to proceed to the degree of LL.B., may take these examinations either during their Arts course or during the Third and Fourth Years of their Law course.

MATRICULATION

The Matriculation examination in the Faculty of Law shall be identical with the examination of the First Year in the Undergraduate Pass Course: English; Latin; one of Greek, French, German, Hebrew, Italian *or* Spanish; a second optional language *or* Science; Algebra and Geometry; Ancient History *or* Trigonometry *or* Religious Knowledge.

FIRST YEAR

The subjects of examination in the First Year in the Faculty of Law are as follows:—

(a) Subjects of the Pass Course in the Faculty of Arts in which Pass standing will be required:—

1. English of the Third Year.
- 2, 3. Any two of the following subjects of the Second Year, viz.:—Latin, Greek, French, German, Hebrew, Physics, Zoology, Botany, Chemistry, Geology of which one must be a language.
4. History of the Second Year.
5. Ethics of the Third Year.
6. History of Philosophy of the Third Year.

(b) Subjects of the Political Science Course, in which Honour standing will be required:—

1. English Constitutional History of the Second and Third Years.
2. English and Colonial Constitutional Law of the Third Year.
3. Political Economy of the Third Year.
4. History of English Law of the Third Year.
5. Roman Law of the Third Year.

SECOND YEAR

The subjects of examination in the Second Year in the Faculty of Law shall be as follows, viz.:—

(a) Subjects of the Pass Course in the Faculty of Arts in which Pass standing will be required:—

1. English of the Fourth Year.
- 2, 3. Any two of the following languages of the Third Year:—Latin, Greek, French, German, Hebrew.

(b) Subjects of the Political Science Course, in which Honour standing will be required:—

1. Modern History of the Third Year.
2. Canadian Constitutional History of the Fourth Year.
3. Public Finance of the Fourth Year.
4. Political Philosophy of the Fourth Year.
5. Jurisprudence of the Fourth Year
6. Public International Law of the Fourth Year.
7. Federal Constitutional Law of the Fourth Year

THIRD YEAR

- | | |
|---|--|
| 1. Common Law..... | Broom's Common Law. |
| 2. Personal Property..... | Williams. |
| 3. History of the Law of Real Property.. | Digby. |
| 4. Contracts..... | Anson. |
| 5. Law of Torts. | { Salmond, English ed.
Pollock |
| 6. Equity. | { Maitland's Lectures on Equity.
Smith's Principles of Equity. |
| 7. *Roman Law of " <i>Obligaciones</i> ". | { Justinian, Institutes 3.13-4.5.
Gaius, Institutes 3.88-3.225.
Mackintosh, Roman Law of Sale. |
| 8. Canadian Constitutional Law. | Clement. |

Additional subjects for candidates for the American Law Book Company's Prize:—

- | | |
|----------------------------------|---|
| 9. The Law of Companies. | { Palmer's Company Law.
Robson and Hugg's Leading Cases
on Company Law. |
|----------------------------------|---|

*Professor T. H. Black is prepared to conduct a course, if a sufficient number of students enrol, on the Roman Law of *Obligaciones*. Such a course would include a detailed account of the Law of Sale, with an examination of the principles taken into the modern law of Sale in Quebec and South Africa, and a comparison with the fundamental principles of Sale in the Common Law countries. In 1922-1923 the course will be held in the Easter Term during one hour a week, the time being arranged to suit members. Students are requested to register before Christmas with the Registrar of the University and at the office of the Department of Political Science.

10 Municipal Corporation Law. The Powers of Municipal Corporations to make contracts, and the manner in which they may contract; the general principles governing the exercise of these powers to pass by-laws; and their powers to create or establish highways and their liabilities with respect to the same when created. The Municipal Act (R S O. 1914, c 192), Meredith and Wilkinson's or Robson and Hugg's Municipal Manual, and Robson and Hugg's Leading Cases; so far as they relate to the named subjects.

Each candidate for the American Law Book Company's Prize must present a thesis upon some subject relating to either of the additional subjects on or before the 31st of March in the year in which he presents himself for examination in his Third Year in the Faculty of Law. The subject of the thesis for the Prize for 1922 is "The advantages and disadvantages from a legal point of view and otherwise of the government of cities by Commission under special Act, as compared with the present system under the Municipal Act".

FOURTH YEAR

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|--|------|--|
| 1. Medical Jurisprudence | | Rees |
| 2. Law of Real Property | | Armour's Real Property. |
| 3. Commercial Law. | | { Chalmers' Sale of Goods, with the Ontario Act of 1920.
Falconbridge's Banking and Bills of Exchange, Book II. |
| 4. Conflict of Laws | | { Dicey's Conflict of Laws, or Westlake's Private International Law. |
| 5. Law of Companies | | { Masten and Fraser's Canadian Law of Companies.
Robson and Hugg's Leading Cases on Company Law. |
| 6. Construction and Operation of Statutes. | | Craie's Hardcastle on Statutes. |
| 7. Criminal Law.... | | { Harris's Criminal Law or Kenny's Outline of Criminal Law.
Stephen's General View of the Criminal Law. |
| 8. Domestic Relations. | | Eversley, Parts 1, 2 and 3. |

Each candidate for the degree of LL.B must present a thesis satisfactory to the examiners in Law, upon some subject embraced in the curriculum, on or before the 31st March in the year in which he presents himself for examination in his Fourth Year in the Faculty of Law, or on or before the said date in any subsequent year. The subject of the thesis will

be prescribed by the Senate, and will be announced at least eight months before the date upon which it is due. An oral examination on the subject of the thesis may be required at the option of the examiners in Law. Candidates for the degree may defer presenting the thesis until a subsequent annual examination, in which case the fee for examination shall be \$10.

FEEs

The following fees must be paid—

For matriculation or entrance	\$10.00
For each examination after matriculation	10 00
For each supplemental examination	10 00
For the degree of LL.B.	20 00
For admission <i>ad eundem gradum</i> , LL.B.	20 00

A candidate will not be admitted to an examination unless he has paid all the fees due from him. A candidate who fails to pay his examination fees on or before the fifteenth of March—the last day for receiving fees prior to the May examination—must pay an additional fee of one dollar.

A candidate who fails to send his application for examination by the day appointed for receiving such applications must pay an additional fee of one dollar.

EXAMINATIONS

The examinations will take place in the month of May.

Every student who purposes presenting himself at any examination is required to send to the Registrar, not later than March 15th, a paper (according to a printed form which will be provided on application) stating his standing, and whether he is a candidate for Honours or otherwise.

Candidates who at any examination have failed in not more than two subjects may, with the consent of the Senate, present themselves for examination in such subjects at the next ensuing Supplemental examinations.

Undergraduates below the Fourth Year in the Faculty of Law, who have been rejected or who have been prevented from attending the Annual examinations in May by sickness or other cause beyond their control, may, with the consent of the Senate, present themselves in September, at the time of the Supplemental examinations in Arts.

Candidates in the Faculty of Law shall not be required to pass an examination on those subjects in which they have already passed the required examination in the University of Toronto, or an equivalent examination in the course of studies prescribed by the Law Society of Upper Canada. Graduates in any Honour Course in the Faculty of Arts of this University shall not be required to pass an examination in Economics and in English Constitutional History.

Candidates who have taken the course at the Law School are required to present to the Registrar a certificate from the Secretary of the Law Society, showing the subjects in the Law School curriculum on which the

candidate has passed examinations at the said school, and such certificates shall entitle the candidate to exemption from examination on the subjects mentioned in said certificate, where said subjects are included in the University curriculum in Law.

SUBJECT OF THESIS

The following is the subject for Thesis for candidates for LL.B. for the year 1923, viz.:—

A presentment and discussion—including the question of social and political effects upon the community at large—of the law affecting Trade Unions in their various activities. A comparison of the Canadian Law with the present Law of England and a discussion of the latter.

DEGREE OF MASTER OF LAWS

Candidates for the said Degree must have been admitted to the Degree of Bachelor of Laws, must be of the standing of one year from admission to the Degree of Bachelor of Laws, must have presented a thesis satisfactory to the examiners in Law, and to the special examiners of such thesis appointed by the Senate, on some branch of law or of the history or philosophy of law, and must have passed the following examinations in the Faculty of Law, viz :—

- | | | |
|--|---|---|
| 1. Roman Law | { | Gaius and Ulpian, edition Muirhead.
Roby's Roman Private Law in the times of Cicero and the Antonines. |
| 2. Criminal Law: Stephen, History of the Criminal Law (omitting chapters on History of Procedure, Summary Jurisdiction, and Indian Criminal Law). | | |
| 3. History of English Law: Pollock and Maitland, History of English Law. | | |
| 4. English Constitutional Law: Gneist, History of the English Constitution; Select Cases in Constitutional Law—Broom, Constitutional Law, Part II. (Relation of the Subject to the Executive); and Part III. (Relation of the Subject to Parliament); Todd, Parliamentary Government in England. | | |
| 5. Canadian Constitutional Law: Lefroy on Legislative Power in Canada; and subsequent reported cases on the subject. | | |
| 6. International Law: Oppenheim, International Law, Third Edition. Constitution of the League of Nations. The British Orders in Council, 1914-1917, relating to the Declaration of London and to maritime retaliation, together with the related documents of other governments. Stowell and Munro: International Cases. | | |
| 7. Jurisprudence: Salmond, Jurisprudence; Bryce, Studies in Jurisprudence; Hall, Foreign Jurisdiction of the British Crown. | | |

8. Civil Code of Lower Canada.

Candidates shall have the option of taking the examination in two groups—subjects 1 to 4 and subjects 5 to 8—the groups being taken in any years after the necessary LL.B. standing has been attained. The thesis may be presented in the year of the second examination or in any subsequent year. A candidate taking the eight subjects together, and failing, shall be awarded standing in either group if he shall have attained the standard for the group, the thesis being returned not read.

The thesis must be sent to the Registrar in typewritten or printed form, not later than the thirty-first day of March

The Senate may appoint special examiners for the whole or any part of the work prescribed for examinations for said degree.

The fee for the said degree shall be thirty dollars (\$30.00).

CERTIFICATES OF HONOUR

Certificates of Honour will be given at each examination to those students who have been placed in Honours. The fee for such certificates shall be one dollar.

PRIZES

The Edward Thompson Company's Prize of the first twenty-five volumes of the American and English Annotated Cases will be awarded to that undergraduate of First Year standing who as a candidate for the examination of the Second Year submits the best thesis on some branch of the law of Personal Property, of Contracts or of Trusts. The subject for 1922 is "A study of the law of Trusts in relation to personal property".

The Canada Law Book Company's Prize of a set of Halsbury's Laws of England will be awarded to that graduate of this University who having completed his course in the department of Political Science, and having passed the First Year examination at Osgoode Hall, has written a thesis on some portion of the work prescribed in the first examination at Osgoode Hall. The subject for 1922 is "A comparative study of the constitutions of Canada and Australia".

The award of these two prizes shall be made to the candidate who obtains the highest aggregate number of marks on all the subjects of the second examination and also the highest number of marks for the thesis and is recommended for the Prize by the regular and special examiners in Law. The thesis shall be sent to the Registrar, in typewritten or printed form, not later than the thirty-first of October, signed by the candidate's pseudonym, and shall be submitted to the special examiners for adjudication and report to the Senate. The special examiners shall, before the day of examination, fix the maximum number of marks to be allowed, and the minimum number of marks which must be obtained on the thesis. In

determining the merit and value of the thesis, the examiners shall attach special importance to the literary qualities, and to the amount of original thought, research and investigation, which have been shown by the candidate in his treatment of the subject of the thesis.

The American Law Book Company's Prize of a complete set of their Cyclopædia of Law and Procedure will be awarded to the successful candidate in the Third Year who shall have obtained the highest aggregate number of marks in all the subjects of examination prescribed in the curriculum for said year, and also in the additional subjects of the Law of Companies and Municipal Law, prescribed for the said Prize, including a thesis upon some subject relating to either of those two additional subjects, and who shall be recommended for said prize by the examiners in Law and by the special examiners appointed to examine the thesis submitted by such candidates.

The Edward Thompson Company's Prizes of the American and English Encyclopædia of Law and of the Encyclopædia of Pleading and Practice will be awarded to the candidates for LL.B. who shall have received the highest and second highest aggregate number of marks at the examination for that degree in the Faculty of Law in all the subjects prescribed for the Fourth Year, including the thesis upon a legal subject, required of such candidates, and who shall be recommended for the Prizes by the examiners in Law, and the special examiners appointed to examine the thesis submitted by such candidates.

The American Law Book Company's Prize of a complete set of their Cyclopædia of Law and Procedure will be awarded to the successful candidate for LL.M. who shall have obtained the highest aggregate number of marks at the examination in subjects 5 to 8 for the said degree, including a thesis upon some branch of Law or of the history of philosophy of Law, and who shall be recommended for the said prize by the examiners in Law and by the special examiners to be appointed by the Senate to examine the theses submitted by such candidates.

STANDARDS

The standing for passing shall in the case of Arts subjects be fifty per cent., and in the case of the Law subjects be fifty per cent. on each subject of an examination, with an average of sixty per cent. on the whole. The standard for Honours shall be an average of seventy-five per cent. of the marks assigned to all the subjects of the Year.

WORKS OF REFERENCE

American and English Annotated Cases, American and English Encyclopædia of Law, Cyclopædia of Law and Procedure, Encyclopædia of Pleadings and Practice, Halsbury's Laws of England, the English and Empire Digest.

CURRICULUM IN DENTISTRY

DEGREE OF DOCTOR OF DENTAL SURGERY

MATRICULATION 1922

A candidate for admission to the course in Dentistry in 1922 will be entitled to the status of an undergraduate who possesses one of the following qualifications:

1. A certificate issued by the Ontario University Matriculation Board, of standing as for Pass Matriculation in the subjects of English, History, Mathematics, Latin and Experimental Science (Physics and Chemistry).
2. A certificate of Junior Matriculation or Normal Entrance with Latin of the Province of Ontario.
3. A certificate of matriculation in the Faculty of Arts of an approved British or Canadian University.
4. A certificate accepted by the General Medical Council of Great Britain for registration as a student of Medicine or Dentistry.
5. A degree in Arts (not being an honorary degree) from some recognized University.

MATRICULATION 1923

A candidate for admission to the course in Dentistry in 1923 will be entitled to the status of an undergraduate who possesses one of the following qualifications:

1. A certificate issued by the Ontario University Matriculation Board, of standing as for Pass Matriculation in the subjects of English, History, Mathematics, Latin, Experimental Science (Physics and Chemistry) and one of Greek, German, French, Italian, or Spanish (preferably French).
2. A certificate of matriculation in the Faculty of Arts of an approved British or Canadian University.
3. A certificate accepted by the General Medical Council of Great Britain for registration as a student of Medicine or Dentistry.
4. A degree in Arts (not being an honorary degree) from some recognized University.

GENERAL

A certificate of standing as an unconditioned student of a University in the United States, may be accepted, but it must be on the basis of a complete four years' course in a High School accredited by the said University. Such a certificate must include Latin for at least two years.

Certificates other than those previously mentioned will be considered in determining the status of applicants as undergraduates.

A candidate must hold the full entrance qualifications before he can be admitted.

ADMISSION TO ADVANCED STANDING

A candidate who has completed the Predental Year in a Provincial University in Canada may be admitted to the Second Year in the Department of Dentistry, provided that the course which he has taken at such University includes the following subjects. English, French, Biology, Physics, Chemistry; and also provided that such standing has been secured after attendance at the University concerned.

FIRST YEAR

English, French, Drawing, Modelling, Chemistry, Physics, Biology, Shop Work, Hygiene, Ethics, Comparative Dental Anatomy, Physical Training

SECOND YEAR

Chemistry, Metallurgy, Histology, Anatomy, Dental Anatomy, Prosthetic Dentistry, Crown and Bridge, Operative Dentistry, Physical Training.

THIRD YEAR

Chemistry, Metallurgy, Physics, Histology, Physiology, Materia Medica and Pharmacology, Dental Anatomy, Prosthetic Dentistry, Crown and Bridge, Operative Dentistry, Physical Training.

JUNIOR YEAR

Bacteriology and Pathology, Prosthetic Dentistry, Crown and Bridge, Operative Dentistry, Preventive Dentistry, Ceramics, Periodontia and Prophylaxis, Electro-Therapeutics and Radiology, Orthodontia, Exodontia and Anaesthesia, Ethics and Jurisprudence, History of Dentistry, Dental Economics, Clinical Dentistry, Physical Training.

SENIOR YEAR

Bacteriology and Pathology, Applied Anatomy, Prosthetic Dentistry, Crown and Bridge, Operative Dentistry, Preventive Dentistry, Ceramics, Periodontia and Prophylaxis, Electro-Therapeutics and Radiology, Orthodontia, Medicine, Surgery, Exodontia and Anaesthesia, Dental Economics, Clinical Dentistry, Physical Training.

EXAMINATIONS AND STANDARDS

The standard for pass for all years and subjects and all sections or parts of subjects shall be 50 per cent. of possible marks.

No student will be permitted to enter a higher year without having first completed all the subjects of the lower year. A student who fails to meet this requirement must repeat the lower year.

All examinations are conducted under the joint direction of the Board and of the University. The term work done by the student in each subject

may count as high as 50 per cent. of the examination, and is reported by the instructor in charge of each subject. The report of the examiners may count as high as 50 per cent. of the examination.

SUPPLEMENTAL EXAMINATIONS

Supplemental examinations are held at convenient times for removing conditions. Applications, together with the fee to write or take a supplemental examination, must be in the hands of the Superintendent of the Royal College of Dental Surgeons at least fifteen days before the date set for the examination.

CURRICULUM IN PHARMACY

DEGREE OF BACHELOR OF PHARMACY

MATRICULATION

Candidates for the degree of Bachelor of Pharmacy must either:—

1. Possess a degree in Arts (not an Honorary degree) from some recognized University; or
2. Have already matriculated in the Faculty of Arts in this or some other University in Canada; or
3. Be matriculants in the College of Physicians and Surgeons of Ontario; or
4. Have passed the Junior or Senior Teachers' examinations of the Education Department of Ontario in which Latin has been taken.

Provided always that all candidates registered as apprentices of the Ontario College of Pharmacy, or who have received the diploma of the College of Pharmacy up to the first day of July, A.D. 1898, shall be admitted as matriculants in the Department of Pharmacy on payment of the registration fee of five dollars.

REGULATIONS

Undergraduates (candidates for the degree) resident in the Province of Ontario must have complied with all the requirements prescribed from time to time by the Council of the Ontario College of Pharmacy for admission to examination for a diploma licensing to practise Pharmacy in Ontario, and must have received from the Registrar of the Ontario College of Pharmacy a certificate of having passed the final examination of that College.

Candidates for the degree, not resident in Ontario, must have devoted at least four years (not being engaged in any other business) to the study of Pharmacy, being apprenticed during that time to a regularly qualified Pharmaceutical Chemist; must have attended the full courses of lectures embracing all the subjects of the curriculum, the length of each course being not less than that required from time to time by the Council at the Ontario College of Pharmacy, and including practical work of some College of Pharmacy recognized by this University; the last of which courses must be taken at the Ontario College of Pharmacy.

All candidates who have, prior to August 15th, 1892, received the diploma of the Ontario College of Pharmacy will not be required to conform to the above, but will be allowed their degree on passing the examination on the subjects hereinafter given.

EXAMINATIONS

Candidates for the degree must pass an examination to be held in the month of May of each year—hour and date of commencing to be hereafter given—must present to the Registrar satisfactory certificates covering all the requirements relating to undergraduates as given above, and of having passed the final examination of the Ontario College of Pharmacy.

The subjects of the examination shall be as follows:—

1. Botany and Microscopy.
2. Theory and Practice of Chemistry and Toxicology.
3. Materia Medica, including Posology and Pharmacognosy.
4. Theory and Practice of Pharmacy, including interpretation of Prescriptions and Dispensing

These examinations shall be partly written, partly oral and partly practical.

No candidate shall be considered as having passed the examination who has not obtained fifty per cent. of the marks allotted; nor shall a candidate be considered as having passed in any subject who has not obtained at least forty per cent. of the marks allotted to such subject.

FEES

For matriculation or registration of matriculation.....	\$5.00
For annual examination (each).....	10.00
For each practical examination	0.50
For the degree of Phm.B....	10.00

No fee shall be charged for transference from any Faculty of this University to the Department of Pharmacy.

CURRICULUM IN AGRICULTURE

DEGREE OF BACHELOR OF THE SCIENCE OF AGRICULTURE

For many years students successfully completing the Two Year Course at the Ontario Agricultural College for the Associate Diploma, who obtained 50 per cent. general proficiency and 60 per cent. average in English subjects, were admitted to Third and Fourth Year Courses of study leading to the Degree of Bachelor of the Science of Agriculture. Commencing with the work of the First Year in the Session 1920-21 the Two Year Course for the Associate Diploma and the Four Year Course for the Degree of B.S.A. became entirely separate and distinct Courses. Applications for admission to the Course leading to the Degree will be considered on the basis of "Qualifications for Admission" stated below. Students who have taken at least one year of the Course as it formerly existed, shall complete their Course under the old regulations.

QUALIFICATIONS FOR ADMISSION

All candidates for admission to the Course leading to the Degree of B.S.A.

- (a) Must be eighteen years of age on or before the opening day of college.
- (b) Must produce satisfactory evidence as to moral character and physical ability.
- (c) Must produce certificate of having spent at least one year at work on a farm, and must have a practical knowledge of ordinary farm operations, such as harnessing and driving horses, plowing, harrowing, drilling, etc. When it is thought necessary, this knowledge will be tested by an examination at entrance or at any subsequent date.
- (d) Must at the request of the college physician submit to vaccination unless certificate of successful vaccination within two years is furnished.
- (e) Must pay in advance tuition fees and laboratory charges and make the required deposits on account of board, contingencies and other fees.
- (f) Must produce with application for entrance Ontario Pass Matriculation Certificate in Arts or Science except as defined in sub-sections 1 and 2 below.

(1) Credits of candidates whose education has been obtained outside of the Province of Ontario will be considered by special committee of the college staff.

(2) Candidates of mature age and extensive farm experience, but without Matriculation, may obtain admission to the Course leading to the degree by fulfilling the following conditions: (i) the completion

of the two year Associate Course, obtaining 40 per cent. in each subject of the second year with an average of 50 per cent together with 60 per cent. in English, (ii) the completion of an Intermediate Year covering academic subjects exclusively, including English, Mathematics, Natural Sciences, and History. On the completion of the Intermediate Year such candidates will enter the Third Year of the Course leading to the degree.

All applications for admission *ad eundem statum* must be accompanied by official certificates of standing from the institutions where previous work has been done.

A student taking the Agriculture Option must have at least three years' practical farm experience before entering the Third Year.

A student taking the Dairy Option must have spent one season at practical work in each of three out of the following five: creamery, condensery, powder milk or city milk plant. A three months' Dairy School Course may be substituted for a season's experience in any one of the commercial plants.

FIRST YEAR

Agriculture—Animal Husbandry, Field Husbandry, Dairy Husbandry, Horticulture, Apiculture, Poultry, Agricultural Economics, Farm Mechanics.

Bacteriology.

Botany.

Chemistry.

English.

Physics.

Zoology.

SECOND YEAR

Agriculture—Animal Husbandry, Field Husbandry, Dairy Husbandry, Horticulture, Apiculture, Poultry, Farm Mechanics.

Bacteriology.

Botany.

Chemistry.

English.

Entomology.

Genetics.

Physics.

INTERMEDIATE YEAR

(To be taken by students who have satisfactorily completed the first two years of the Associate Diploma Course and who wish to qualify for admission to the degree course)

Bacteriology, Botany, Chemistry, English, Entomology, Genetics, History, Mathematics, Physics.

THIRD YEAR

GENERAL AGRICULTURE—AGRONOMY ALTERNATIVE:

Primary Majors. Agriculture—Animal Husbandry, Agronomy, Agricultural Economics, Poultry.

Secondary Majors. Farm Mechanics, Physics (Soils and Drainage).

Minors. Biochemistry, Botany, Economics, English, Physics.

GENERAL AGRICULTURE—ANIMAL HUSBANDRY ALTERNATIVE:

Primary Majors. Agriculture—Animal Husbandry, Agronomy, Agricultural Economics, Poultry.

Secondary Majors: Farm Mechanics, Physics (Soils and Drainage).

Minors. Biochemistry, Botany, Economics, English.

AGRICULTURAL ENGINEERING OPTION:

Primary Majors: Physics (Agricultural Engineering, Soils and Drainage, Climatology) Farm Mechanics.

Secondary Major. Mathematics.

Minors: Bacteriology, Economics, English.

APICULTURE OPTION:

Primary Major. Apiculture.

Secondary Majors: Biochemistry, Botany, Entomology (Insect Anatomy).

Minors: Botany, Economics, English, French or German, physics (Climatology).

BACTERIOLOGY OPTION:

Primary Major. Bacteriology.

Secondary Majors: Biochemistry, Botany (Cryptogamic), Zoology.

Minors: Economics, English, French or German, Zoology.

BOTANY OPTION

Primary majors: Botany (Cryptogamic Systematics, Plant Histology).

Secondary Majors: Bacteriology, Biochemistry, Entomology and Zoology.

Minors: Economics, English, French or German, Physics.

CHEMISTRY OPTION

Primary Majors: Biochemistry, Chemistry.

Secondary Majors: Bacteriology, Mathematics, Physics.

Minors: Economics, English, French or German.

DAIRY OPTION

Primary Major: Dairying.

Secondary Majors: Bacteriology, Biochemistry, Chemistry.

Minors: Agronomy, Animal Husbandry, Economics, English.

ENTOMOLOGY OPTION

Primary Majors: Entomology and Zoology.

Secondary Majors: Bacteriology, Botany, Biochemistry.

Minors: Economics, English, French or German, Physics.

HORTICULTURE OPTION:

Primary Major: Horticulture.

Secondary Majors: Biochemistry, Botany, Entomology, Genetics.

Minors: Agricultural Economics, Bacteriology, Economics, English, Physics.

EXAMINATION STANDARDS

For standing in the First and Second Years 50 per cent. of the total number of marks is required with 40 per cent. in each subject except Public Speaking, Composition and Thesis in each of which 50 per cent. is required.

For standing in the Third Year 40 per cent. in each subject is required except Public Speaking, in which 50 per cent. is required.

The following standards for honours shall apply to all First, Second and Third Year Examinations:—

First Class Honours..	75%
Second Class Honours.....	60%
Third Class Honours	40%

NOTE.—Students intending to take the Fourth Year shall select their option not later than the 1st of April in the Third Year, after consultation with the head of the department concerned; and shall then notify the President of their selection and its approval by the Head above referred to.

FOURTH YEAR (FOR THE B.S.A. DEGREE)

One of the following options:—

- | | |
|------------------|--------------------------------|
| 1. Agriculture. | 5. Chemistry and Bacteriology. |
| 2. Apiculture. | 6. Chemistry and Physics. |
| 3. Bacteriology. | 7. Dairy. |
| 4. Biology. | 8. Horticulture. |

AGRICULTURE OPTION

Field Husbandry: Field crops; organization; field crop experiments; crop improvement; study of plants; study of plants and seeds; preparation of sheaves and other crop materials for fairs and exhibitions; examination and practical work with grain cleaning machinery.

Animal Husbandry: Advanced judging; breed history; laws governing the breeding of farm animals and a discussion of how they work out in practice, family history; herd book studies; live stock advertising; feeds and feeding; feeding and management; markets; auction sales; carcass work.

Poultry: Judging; poultry housing; hatching and rearing; diseases of poultry; marketing poultry products; management; practical work; principles of breeding; reading, as assigned.

- Agricultural Economics: Farm organization; marketing.
 Bacteriology: Infectious diseases of man, domestic animals, poultry and bees.
 Botany: Systematic botany; plant pathology; the identification of common weeds and trees.
 Chemistry: Soil fertility; animal nutrition; soils, fertilizers and crops; feeds, water.
 Physics: Light; soil physics; drainage and surveying, climatology.
 Economics: Money and banking; distribution of wealth.
 English: The Victorian era, lectures.
 French or Rural Sociology.

APICULTURE OPTION

- Apiculture: Methods of queen-rearing, preparation and use of nuclei, methods of increase, study of Ontario honey, beeswax and apiary produce, seasonal management of the commercial apiary, apiary locations, central and out apiary equipment; Evolution of bee-keeping practices, history and use of apiary appliances, study of bee-keeping literature, bee diseases, marketing of apiary products.
 Entomology and Zoology. Systematic entomology; insect morphology; insect histology, physiology and embryology; invertebrate zoology.
 Agricultural Economics.
 Poultry: Judging; poultry housing; hatching and rearing; diseases of poultry; marketing poultry products; management; practical work; principles of breeding; reading, as assigned.
 Bacteriology: Infectious diseases of man, domestic animals, poultry and bees.
 Botany: Advanced systematic botany.
 Chemistry: Insecticides and fungicides; chemistry of fruits, vegetables, fermentation and canning.
 Economics: Money and banking; distribution of wealth.
 English: The Victorian era; lectures.
 French.
 Physics: Climatology.

BACTERIOLOGY OPTION

- Bacteriology: Bacterial culture methods; microscopic methods; classification; soil bacteriology; bacteriology of the water supply and sewage; microbiology of fermentations and foods; bacterial diseases of plants; infectious diseases of man, domestic animals, poultry and bees; dairy bacteriology; household microbiology and hygiene.
 Botany: Advanced cryptogamic botany; advanced plant pathology.
 Chemistry: Chemistry of fruits, vegetables, fermentation and canning.
 Zoology: Vertebrate zoology; vertebrate histology; animal physiology.
 Economics: Money and banking; distribution of wealth.
 English: The Victorian era; lectures.
 French.

BIOLOGY OPTION

Botany: Advanced cryptogamic botany; advanced structural histology; physiological botany; systematic botany; advanced systematic botany; plant pathology; advanced plant pathology; the technique of Plant Pathology, including the preparation of media; steam and dry air sterilization; the proof of pathogenicity.

Entomology and Zoology: Economic entomology; systematic entomology; economic entomology; insect morphology; insect histology, physiology and embryology; invertebrate zoology; vertebrate zoology; economic zoology; vertebrate histology; animal physiology.

Bacteriology: Infectious diseases of man, domestic animals, poultry and bees.

Chemistry: Insecticides and fungicides.

Economics: Money and banking, distribution of wealth.

English: The Victorian era; lectures.

French.

CHEMISTRY AND BACTERIOLOGY OPTION

Chemistry: Soil fertility; animal nutrition; inorganic chemistry; qualitative analysis, quantitative analysis, organic chemistry; soils, fertilizers and crops, feeds, water.

Bacteriology: Bacterial culture methods; microscopic methods; classification; soil bacteriology; bacteriology of the water supply and sewage; microbiology of fermentations and foods; infectious diseases of man, domestic animals, poultry and bees; dairy bacteriology; household microbiology and hygiene.

Mathematics: Senior; elementary trigonometry.

Economics: Money and banking, distribution of wealth.

English: The Victorian era; lectures.

French.

CHEMISTRY AND PHYSICS OPTION

Chemistry: Soil fertility; animal nutrition; inorganic chemistry; qualitative analysis; quantitative analysis; organic chemistry; soils, fertilizers and crops; feeds, water.

Physics: Electricity and magnetism and electro-chemistry; light; climatology.

Mathematics: Senior; elementary trigonometry.

Economics: Money and banking; distribution of wealth.

English: The Victorian era; lectures.

French.

DAIRY OPTION

Dairy Husbandry: Soft and fancy cheesemaking; condensed and powder milk; experiments in cheesemaking.

Bacteriology: Dairy bacteriology.

Chemistry: Animal nutrition; milk and its products; dairy chemistry.
Poultry.
Economics: Money and banking; distribution of wealth.
English: The Victorian era; lectures.
French.

HORTICULTURAL OPTION

Horticulture: Advanced course in plant propagation; advanced course in landscape gardening; advanced course in taxonomy of fruits, vegetables, plants and flowers, botanical classification of horticultural plants; the improvement of horticultural plants by breeding, principles and methods, inheritance, technique, greenhouse construction and management; research and experimentation in horticulture; care and management of the farmer's woodland.
Botany: Advanced systematic botany; advanced plant pathology; physiology and ecology.
Poultry: Judging; poultry housing; hatching and rearing; diseases of poultry; marketing poultry products, management; practical work; principles of breeding; reading, as assigned.
Entomology: Economic entomology; economic entomology.
Chemistry: Soil fertility, insecticides and fungicides; chemistry of fruits, vegetables, fermentation and canning.
Physics: Meteorology.
Economics: Money and banking; distribution of wealth.
English: The Victorian era; lectures.
French or Rural Sociology.

STANDARD FOR PASS AND HONOURS IN FOURTH YEAR EXAMINATIONS

Major Subjects: I. 75 per cent.
II. 66 per cent.
III. 40 per cent.

Each student must obtain an average of 50 per cent. on all major subjects.

Minor Subjects: A. 75 per cent.
B. 50 per cent.
C. 33 per cent.

FEES

Each examination	\$10 00
Degree	10.00

THESIS

Each fourth year student is required to prepare a Thesis on some branch or department of the work in his special course under the direction of the Professor or Instructor in whose department the work is done. The subject is to be chosen not later than the end of the third year, and submitted

for the approval of the Staff on or before April 1st. The Thesis must be based on original work. It must be typewritten on letter-sized paper of good quality, allowing one and a half inches on the left side of each page and one inch on the other three sides to allow for binding. Maps, charts, photographs, etc., must have one inch margin on the left side. All theses must be handed to the Committee of Adjudication on or before the 1st of April of the fourth year.

CURRICULUM IN PHYSICAL TRAINING

DIPLOMA IN PHYSICAL TRAINING

A diploma will be granted to students of the University who shall have completed to the satisfaction of the Senate the following courses for teachers of Physical Training:—

FIRST YEAR

THEORY:

ANATOMY—Composition and classification of bones; classification of joints, description of movable joints; varieties, origin, insertion and action of muscles; anatomy of circulatory, respiratory, digestive and nervous systems.

PHYSIOLOGY—Oxidation and waste, metabolism; mechanism of respiration; physiology of muscle; function of digestive juices, lymph; nutrition and absorption; animal heat.

FIRST AID—Shock, wounds, bleeding, burns, exposure to cold, frost bite, fractures, sprains, dislocations, choking, foreign bodies in eye and ear, unconsciousness, fainting, apoplexy, heatstroke, epilepsy, hysteria, poisons, bandaging.

PRACTICE:

FOR MEN—Mutual instruction in calisthenics, dumb bells, wands, clubs and freehand, elementary exercises on the horse, mats, vaulting bar, and buck; indoor games: basket ball, indoor baseball and volley ball and elementary gymnasium games as tag, follow the leader; playground games—outdoor athletics: starting, sprinting, running, broad jump, high jump, shot put, hurdles; swimming.

FOR WOMEN—Elementary Swedish exercises; corrective exercises; marching tactics, figure marching; exercises and drills with wands, dumb bells and clubs; exercises on vaulting horse, suspended ladder, parallel bars, Swedish stall bars, parallel rings; junior technique of dancing, rhythmic steps, aesthetic, folk and national dances; ball, singing and miscellaneous active games; swimming.

SECOND YEAR

THEORY:

HYGIENE—School, dwelling and gymnasium ventilation; personal hygiene; baths and bathing; immunity.

PHYSIOLOGY OF EXERCISE—Combustion, fatigue, breathlessness, stiffness, overwork, effect of training, mental work.

ANTHROPOMETRY—Card index system, value of measurements, average physique, ideal physique, instruments, prescription of exercise.

PRACTICE:

FOR MEN—Mutual instruction in calisthenics; first and second grade exercises on the horse, mats, parallel bars, horizontal bar, bar, ladder, rings.

Outdoor Games: baseball, hockey, lacrosse, rugby, soccer.

Swimming: life saving methods, Schafer method of resuscitation; Boxing, Bayonet and Singlestick, Playground games.

FOR WOMEN—Continuation of Swedish Exercises; corrective exercises; marching tactics, figure marching; advanced exercises and drills with wands, dumb bells and clubs; Exercises on apparatus, vaulting horse and buck, vaulting bar; parallel bars, suspended travelling rings, Swedish stall bars; senior technique of dancing, aesthetic, classic rhythmic movement, folk and national dances; gymnastic, ball, and miscellaneous games; basket ball; swimming.

THIRD YEAR

THEORY:

ANTHROPOMETRY—Laws of growth; comparative measurements; height weight; lung capacity; acceleration and retardation of growth.

PHYSICAL DIAGNOSIS—Normal body, detection of defects, method of examining heart, lungs, inspection palpation, percussion, auscultation.

PRESCRIPTION OF EXERCISE—Exercise as a therapeutic agent according to needs of the individual.

PRACTICE:

FOR MEN—Mutual instruction in calisthenics; second and third grade exercises on the horse, mats, parallel bars, horizontal bar, rings; advanced boxing and fencing; wrestling; swimming, life saving methods, diving; further practice in indoor and outdoor games for coaching and officiating purposes.

FOR WOMEN—Continuation of Swedish exercises and gymnastics; remedial exercises and medical gymnastics; marching tactics; apparatus; fencing; single stick drill; dancing; swimming, and life saving; dancing, senior technique, solo and interpretive dances.

FOURTH YEAR

THEORY:

PRESCRIPTION OF EXERCISE—Remedial gymnastics; spinal curvature; special apparatus; massage and thermal agents.

PHYSICAL DEPARTMENT METHODS—Organization, administration, gymnasium construction and equipment, swimming pools, playgrounds, extension work.

HISTORY OF PHYSICAL EDUCATION—

PRACTICE:

FOR MEN—Pedagogy: Common faults in teaching, assignment of exercise for classes of various grades; nomenclature: calisthenics, apparatus; gymnastic and athletic competition: rules of competition scoring; practical extension work: supervision of classes outside the University.

FOR WOMEN—Pedagogy: Supervision of classes outside of the University; mutual instruction in Swedish exercises and gymnastics; calisthenics; apparatus, technique of dancing, marching tactics; gymnastic and athletic games, continuation of class instruction in artistic drills; fencing; swimming and life saving.

Text Books and Works of Reference: Barton, Physical Training; Corsan, At Home in the Water; The Syllabus of Physical Exercises for Elementary Public Schools (Strathcona Trust); Hastings, Manual for Physical Measurements; Seaver, Anthropometry; Le Grange, Physiology of Exercise; Gray, Anatomy; Fisher, Physiology; Poore, Medical Gymnastics; Lovett, Lateral Curvature; Gymnasti Nomenclature (Y.M.C.A.); Skarstrom, Gymnastic Kinesiology, E. Burchenal, Folk-Dances and Singing Games; E. Burchenal, The Dances of the People; Marè Hofer, Popular Folk Games and Dances; Louis H. Chalif, Text-Book of Dancing, Part I and II; J. Brancroft, Games for the Playground, Home, School, and Gymnasium; Magazines, American Physical Education, Review, Playground.

CURRICULUM IN VETERINARY SCIENCE

DEGREE OF BACHELOR OF VETERINARY SCIENCE

The course leading to the Degree of Bachelor of Veterinary Science (B.V.Sc.), shall extend over a period of four academic years, of not less than seven months each.

MATRICULATION

The standard adopted for the entrance requirement is based upon the successful completion, or the equivalent, of a high school course of four years in a Collegiate Institute, High School or Continuation School.

Candidates for admission to the Course in Veterinary Science must therefore, submit either—

1. A Normal Entrance of Junior Matriculation Certificate of Ontario.
2. A Certificate, equivalent in standard, of any Province of Canada, of any part of the British Empire, or of the United States of America.
3. Certificates other than those mentioned will be considered by the Senate in determining the status of applicants as undergraduates.
4. A Certificate of having passed a qualifying examination in English Composition, English Literature, British and Canadian History, Ancient History, Algebra, Geometry, Physics, and Chemistry, similar to the Normal Entrance examination of Ontario and represented in general by the Second Class Teacher's examinations of the Provinces of Canada.

To qualify for such a certificate candidates may present themselves at an examination centre in any Province of the Dominion at the time when the Department of Education of that Province holds its regular annual examinations, and at such other times and centres as may be approved by the Senate.

ADMISSION TO ADVANCED STANDING

A student of a recognized veterinary college, or agricultural college, may be admitted to standing on conditions to be determined in each case by the Senate upon the report of the Ontario Veterinary College.

CURRICULUM

Candidates for the Degree shall ordinarily complete the courses of instruction and examinations of the first, second and third years at the Ontario Veterinary College. The subjects of instruction and examination for the fourth year are as follows:

- Veterinary Medicine and Surgery.
- Infectious and Contagious Diseases of Animals.
- Obstetrics and Hygiene of Breeding Animals.
- Veterinary Materia Medica and Therapeutics.
- Pathology.
- Bacteriology.
- Meat and Milk Hygiene.
- Veterinary Sanitary Service Laws and Regulations.

Examinations at the end of the fourth year shall be conducted by examiners appointed by and under regulations approved by the Senate.

The standard of passing shall be fifty per cent. in each subject with an average of sixty per cent. of the total number of marks assigned to the subjects.

The first class honour standard is seventy-five per cent. and the second class sixty per cent.

Any student failing in not more than three of the above subjects may take supplementary examinations in these subjects, and upon passing the same shall be entitled to receive the Degree.

Upon the successful passing of the examinations in the above subjects the students shall be entitled to receive the Degree of Bachelor of Veterinary Science (B.V.Sc.).

DEGREE OF DOCTOR OF VETERINARY SCIENCE

The degree of Doctor of Veterinary Science is intended to be conferred under such conditions as will denote its receipt only by those distinguished for professional eminence.

A candidate for this degree shall be a graduate in Veterinary Science (B.V.Sc.) of the University of Toronto of at least three years' standing. He must present a thesis embodying the results of an original investigation conducted by himself on some subject approved by the Senate not later than the first of January.

The thesis must be based upon either:

- (a) The results of a special research.
- (b) The results of professional experience in a designated field allied to the live stock industry.

(c) The results of a special course of study extending over at least one year.

In order to be qualified for admission to the degree at the Annual Commencement in June, the thesis must be in the hands of the Registrar of the University not later than the first of May.

FEEs

(Subject to change).

Members of the graduating class will require to pay a fee of \$10.00 for examinations and the degree of Bachelor of Veterinary Science (B.V.Sc.). This fee is to be paid to the Bursar of the University before writing the final examinations. The fee for the degree of Doctor of Veterinary Science (D.V.Sc.) shall be \$15.00, which shall be paid on presentation of the thesis for the said Degree.

FEDERATED AND AFFILIATED COLLEGES.

WYCLIFFE COLLEGE

Wycliffe College was founded in 1877 and incorporated in 1879. In 1885 it was affiliated with the University of Toronto, and federated in 1890 upon the proclamation of the Federation Act.

Its object is the Theological training of candidates for the ministry of the Church of England in Canada, and for the foreign missionary field.

In the University and University College its students receive instruction in the prescribed subjects of the Arts Course, as preliminary to the special study of Theology. The Theological course extends over a period of three years, and leads up to the degree of B.D., and D.D.

Part of the first year of the Theological Course may be taken concurrently with the Arts work of the University by means of the Theological options, and by following the schedule laid down in the Calendar of the College.

The first building of the College was erected in 1882. The work is now carried on in the second building erected in 1891, and added to in 1902, 1908, and in 1911, on the University Grounds and immediately adjoining the new Hart House. It contains rooms for 98 students, Convocation hall, lecture rooms, library, chapel, dining hall, etc.

Students are members of the Hart House, with gymnasias and club rooms, and have all the privileges of the University.

THE FACULTY

REV. T. R. O'MEARA, D.D., LL.D., (*Principal*), *Professor of Practical Theology, Homiletics and Pastoral Theology.*

REV. DYSON HAGUE, M.A., D.D., *Professor of Liturgics.*

REV. W. T. HALLAM, M.A., D.D., *Professor of New Testament Literature and Exegesis.*

REV. E. A. MCINTYRE, M.A., B.D., *Professor of Systematic Theology and Apologetics.*

REV. C. V. PILCHER, M.A., D.D., *Professor of Old Testament Literature and Exegesis.*

REV. H. W. K. MOWLL, M.A., *Professor of Ecclesiastical History.*

JOHN D. FALCONBRIDGE, ESQ., M.A., *Honorary Lecturer in Canon Law.*

MIRIAM W. BROWN, *Lecturer in Reading and Voice Culture.*

President and Chairman of the Council

N. W. HOYLES, ESQ., B.A., K.C., LL.D.,

Representatives on the University Senate

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J. D. FALCONBRIDGE, ESQ., M.A.

Secretary to the Faculty

REV. W. T. HALLAM, M.A., D.D.

Dean of Residence

REV. H. W. K. MOWLL, M.A.,

Librarian

REV. E. A. MCINTYRE, M.A., B.D.

Bursar and Registrar

H. MORTIMER, ESQ. C.A.

KNOX COLLEGE

Knox College was established at Toronto in 1844, as a theological seminary in connection with the Synod of the Presbyterian Church of Canada (Free Church), which had been organized in the same year. In 1858 it was incorporated by Act of Parliament. In 1861, in consequence of the union of the Synod of the Free Church and that of the United Presbyterian Church, as the Synod of the Canada Presbyterian Church, Knox College and the Theological Institute of the United Presbyterian Synod were united.

After several changes of location the buildings on Spadina Avenue were erected in 1875 and were occupied until 1914 when the College moved to the beautiful new buildings facing on the University Lawn. Knox College was affiliated with the University of Toronto in 1885, and federated in 1890, upon the proclamation of the Federation Act. In the University and University College such of its students as are not proceeding to a degree receive instruction during three sessions in English, Latin, Greek, History, Logic, Mathematics, Chemistry, Biology, Physics, Psychology, Mental and Moral Philosophy and Hebrew. The Regular University Course leading to the degree of B.A. is the preparation expected of entrants in Theology. The course in Theology extends over three years. In addition to the required course, a special course of study leads to the degree of B.D. A number of scholarships and prizes are offered for competition in each year. Religious Knowledge options may be taken by students of the University in any year of their course, and Theological options taken in the Third and Fourth years may be counted as part of the regular course in Theology. Courses of study in the New Testament are provided in Knox College for every year of the Undergraduate course, and may be taken as Religious Knowledge options for the University degree.

The College is governed by "The Board of Management": Mr. J. K. Macdonald, Chairman; Rev. R. C. Tibb, B.A., Secretary; The Treasurer of the Presbyterian Church in Canada is the Treasurer of Knox College. The "Board" consists of thirty-five members, appointed annually by the General Assembly of the Presbyterian Church in Canada.

THE FACULTY

- REV. ALFRED GANDIER, M.A., D.D., LL.D., *Principal and Professor of Pastoral Theology, Christian Missions and the English Bible.*
- REV. T. B. KILPATRICK, D.D., S.T.D. (Hart.), *Professor of Systematic Theology.*
- REV. WILLIAM MANSON M.A., B.A.,(Oxon.), *Professor of New Testament Literature and Exegesis.*
- REV. RICHARD DAVIDSON, M.A., PH.D., D D., *Professor of Old Testament Literature and Exegesis.*
- REV. HUGH MATHESON, LL.B., *Librarian.*
- REV R. C. TIBB, B.A., *Secretary of Senate*
- REV. J. A. TURNBULL, LL.B., D.D., *Chairman of Board of Examiners.*
- MR. F. H. KIRKPATRICK, *Teacher of Elocution*
- REV. GEO. C. PIDGEON, D.D., *Lecturer in Homiletics.*
- REV. D. M. RAMSAY, D.D., *Tutor in New Testament Greek.*
- PROF. PETER SANDIFORD, PH.D., *Lecturer in Child Psychology and Pedagogy.*
- REV. ALEXANDER MACMILLAN, D.D., *Lecturer on Hymnology and Church Music.*

VICTORIA UNIVERSITY

FACULTY OF THEOLOGY

The Faculty of Theology in Victoria College was established in 1871 for the purpose of training candidates for the ministry of the Methodist Church. Its classes and degrees have, however, always been open to candidates for the ministry in any Church, and are now open to members in good standing in any Christian Church.

Instruction is provided in the various courses of study leading up to ordination in the Methodist Church, viz., the B.D. Course, the Course for Graduates in Arts, and the Course for Non-graduates.

Undergraduates in Arts, whether candidates for the ministry or not, have the privilege of taking certain subjects in Theology as options in Religious Knowledge in the several years of their course, as indicated in this Calendar in the prescriptions of the Arts Courses.

For further information as to courses of study, fees, honours, prizes, scholarships and regulations, see the Theological Calendar of Victoria College, or apply to the Rev. Professor J. F. McLaughlin, B.A., D.D., Dean of the Faculty of Theology.

THE FACULTY

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| REV. A. H. REYNAR, M.A., LL.D. | } <i>Professores Emeriti.</i> |
| REV. F. H. WALLACE, M.A., D.D. | |
| REV. J. F. McLAUGHLIN, B.A., D.D., <i>Professor of Old Testament Exegesis and Literature.</i> | |
| REV. R. P. BOWLES, M.A., D.D., LL.D., <i>Professor of Systematic Theology.</i> | |
| W. B. LANE, M.A., PH.D., <i>Professor of Ethics and Didactics.</i> | |
| W. H. GREAVES, M.A., <i>Professor of Public Speaking.</i> | |
| REV. A. J. JOHNSTON, B.A., <i>Professor of Homiletics and Pastoral Theology and of Church History.</i> | |
| REV. J. W. MACMILLAN, B.A., D.D., <i>Professor of Sociology.</i> | |
| REV. J. H. MICHAEL, M.A., <i>Professor of New Testament Exegesis and Literature.</i> | |
| REV. W. A. POTTER, M.A., B.D., <i>Associate Professor of Old Testament Exegesis and Literature.</i> | |
| REV. F. W. LANGFORD, B.A., M.R.E. <i>Associate Professor of Religious Pedagogy.</i> | |
| W. T. BROWN, M.A., PH.D., <i>Associate Professor of Ethics and Apologetics.</i> | |
| REV. W. B. CASWELL, B.A., <i>Special Lecturer in History of Preaching.</i> | |

The corporate name of the profession of Dentistry in the Province of Ontario is the Royal College of Dental Surgeons. The College was incorporated in 1868 with power to examine and issue license to practise Dentistry in the Province of Ontario. In 1875 the College established a School of Dentistry for the purpose of instructing students in their professional work.

ADMINISTRATIVE OFFICERS

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 A. E. WEBSTER, L.D.S., D.D.S., M.D., *Professor of Operative Dentistry, Dental Pathology and Therapeutics.*
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- I. H. ANTE, L.D.S., D.D.S., *Associate Professor, Prosthetic Dentistry.*
 J. A. BOTHWELL, L.D.S., D.D.S., *Associate Professor, Clinical Prosthetic Dentistry.*
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 W. E. WILLMOTT, L D.S., D D.S., *Associate Professor, Prosthetic Dentistry*

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 G. N. BRAMFITT, B.A., *Lecturer in English.*
 FREDERICK COATES, *Demonstrator in Modelling.*
 H. S. PALMER, *Assistant in Art.*
 R. B. STEWART, M.A., M.D., *Lecturer in Chemistry.*
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 L. E. WESTMAN, M.A., A.I.C., *Lecturer in Chemistry.*

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 L. F. KRUEGER, L.D.S., D.D.S., *Clinician, Operative Dentistry.*
 W. G. TRELFOED, L D.S., D D.S., *Clinician, Operative Dentistry.*

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 A. B. BABCOCK, L.D.S., D.D.S., *Demonstrator, Operative Dentistry.*
 H. G. BEAN, L.D.S., D.D.S., *Demonstrator, Prosthetic Dentistry.*
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 W. EASSON BROWN, M.B., *Demonstrator, Osteology, Anatomy.*
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 H. W. HOAG, L.D.S., D.D.S., *Demonstrator, Prosthetic Dentistry.*
 W. T. HOLMES, L.D.S., D.D.S., *Demonstrator, Operative Dentistry.*
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 E. W. MCHENRY, B.A., *Demonstrator, Chemistry*
 G. E. OLDHAM, L.D.S., D.D.S., *Demonstrator, Dental Anatomy*
 B. M. OTT, L.D.S., D.D.S., *Demonstrator, Dental Anatomy.*
 J. A. PRIESTMAN, L.D.S., D.D.S., *Demonstrator, Operative Dentistry.*
 A. C. PYE, L.D.S., D.D.S., *Demonstrator, Operative Dentistry.*
 S. M. RICHARDSON, L.D.S., D.D.S., *Demonstrator, Dental Anatomy.*
 MISS W. C. RIDDLE, B.A., *Demonstrator, Histology, Bacteriology and Pathology.*
 J. L. ROBINSON, M.D., C.M., *Demonstrator, Osteology and Anatomy.*
 H. A. ROSS, L.D.S., D.D.S., *Demonstrator, Operative Dentistry*
 J. M. SHEDDEN, L.D.S., D.D.S., *Demonstrator, Operative Dentistry.*
 W. E. L. SPARKS, B.M., *Demonstrator, Osteology and Anatomy.*
 R. B. STEWART, M.A., M.D., *Demonstrator, Preventive Dentistry.*
 R. R. WALKER, L.D.S., D.D.S., *Demonstrator, Prosthetic Dentistry.*
 R. M. WATSON, L.D.S., D.D.S., *Demonstrator, Prosthetic Dentistry.*
 R. S. WOOLLATT, L.D.S., D.D.S., *Demonstrator, Prosthetic Dentistry.*

INSTRUCTOR

W. G. SWITZER, L.D.S., D.D.S., *In charge, Senior Laboratory.*

LIBRARIAN AND CURATOR OF MUSEUM

C. A. KENNEDY, L.D.S., D.D.S.

HONORARY CLINICIANS

W. B. AMY, L.D.S., D D.S.

W. L. CHALMERS, L D.S , D D S.

HAROLD CLARK, L.D.S., D.D.S.

CHAS. E. PEARSON, L.D.S , D D.S.

A. A STEWART, L.D.S , D.D.S.

A. S. THOMSON, L.D.S., D.D.S.

FELLOW, SESSION 1921-22

ROBERT GORDON AGNEW, B.A., L.D.S , D D S

The School of Dentistry of the Royal College of Dental Surgeons of Ontario was affiliated with the University of Toronto in 1888, and shortly thereafter an examination for the degree of Doctor in Dental Surgery was instituted in the University. See Curriculum in Dentistry elsewhere in this volume.

ONTARIO COLLEGE OF PHARMACY

The Council of the College of Pharmacy, the biennially-elected governing body of the practising pharmacists of the Province of Ontario, began in 1882 to give instruction in the various subjects necessary for license for druggists. The College Building, situated in St. James' Square, was erected in 1886, and the Faculty reorganized and extensive additions made to the building in 1891. In the same year affiliation was entered into with the University of Toronto. For curriculum, see p. 593. For details as to laboratory and other courses, preliminary qualifications, etc., see Annual Announcement of the College, which may be had by addressing W. B. Graham, Registrar-Treasurer, Ontario College of Pharmacy, Toronto, Ontario.

THE FACULTY

CHARLES F. HEEBNER, PH.G., PHM B., F.C.I.C., *Dean, Professor of Theory and Practice of Pharmacy and Dispensing, Director of the Pharmaceutical and Dispensing Laboratories.*

JOHN T. FOTHERINGHAM, B.A., M.D., C.M., *Emeritus Professor of Materia Medica.*

GRAHAM CHAMBERS, B.A., M.B., *Emeritus Professor of Chemistry.*

PAUL L. SCOTT, M.B., *Professor of Biology.*

GEORGE A. EVANS, PHM.B., F.C.I.C., *Professor of Chemistry and Physics, Director of the Chemical Laboratory.*

R. O. HURST, PHM.B., *Lecturer in Latin, Posology and Materia Medica.*

ONTARIO AGRICULTURAL COLLEGE

1921-1922

ADMINISTRATIVE STAFF

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S. SPRINGER, *Bursar*
A. M. PORTER, B.S.A., *Registrar*
MARGARET I. ODROSKIE, *President's Secretary*.
N. C. MACBETH, *Dean of Residence*.
ANNIE O. HALLETT, *Librarian*.
MARGARET M. THOMPSON, *Assistant Librarian*
G. HILBORN, *Assistant Librarian*.
W. C. STEWART, M.D., *Physician*.
MRS. K. GALBRAITH, *Matron*.
MISS M. MONTGOMERY, *Dietitian*.
MISS H. HEPBURN, *Assistant Dietitian*.

FACULTY OF INSTRUCTION AND LABORATORY STAFF 1922-23

J. B. REYNOLDS, M.A., *President*.
H. H. DEAN, B.S.A., *Professor of Dairy Husbandry*.
C. A. ZAVITZ, B.S.A., D.Sc., *Professor of Field Husbandry*
J. HUGO REED, V.S., *Professor of Veterinary Science*.
R. HARCOURT, B.S.A., *Professor of Chemistry*.
JOHN EVANS, *Professor of Manual Training*.
W. B. GRAHAM, B.S.A., *Professor of Poultry Husbandry*.
J. W. CROW, B.S.A., *Professor of Horticulture*
J. E. HOWITT, B.S.A., *Professor of Botany*.
D. H. JONES, B.S.A., *Professor of Bacteriology*.
O. J. STEVENSON, M.A., D.PAED., *Professor of English*.
WADE TOOLE, B.S.A., *Professor of Animal Husbandry*.
W. C. BLACKWOOD, B.A.Sc., *Professor of Physics*.
F. E. MILLEN, B.S.A., *Professor of Apiculture*.
A. LEITCH, B.S.A., *Professor of Farm Economics*.
OLIVE CRUIKSHANK, B.A., *Director of Home Economics*.
L. CAESAR, B.A., B.S.A., *Professor of Economic Entomology*.
A. W. BAKER, B.S.A., *Professor of Entomology*.
H. H. LEDREW, B.S.A., *Professor of Political Economy and Sociology*.
R. D. COLQUETTE, B.S.A., *Professor of Marketing Economics*.
F. N. MARCELLUS, B.S.A., *Professor of Poultry Husbandry*.
W. J. SQUIRRELL, B.S.A., *Associate Professor of Field Husbandry*.
J. P. SACKVILLE, B.S.A., *Associate Professor of Animal Husbandry*.

- G. H. UNWIN, B.S.A., *Associate Professor of English.*
 H. L. FULMER, B.S.A., *Associate Professor of Chemistry.*
 T. H. LUND, B.S.A., *Associate Professor of Bacteriology*
 R. E. STONE, B.Sc., Ph.D., *Associate Professor of Botany*
 ANNIE ROSS, M.D., C.M., *Lecturer in Physiology, Home Nursing and Psychology.*
 E. W. KENDALL, *Specialist in Manual Training*
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 R. C. MOFFATT, M.A., *Lecturer in Physics.*
 J. A. NEILSON, B.S.A., *Lecturer in Horticulture*
 F. L. FERGUSON, B.S.A., *Lecturer in Physics.*
 G. J. SPENCER, B.S.A., *Lecturer in Entomology*
 J. COKE, B.S.A., *Lecturer in Farm Economics.*
 W. H. SPROULE, B.S.A., *Lecturer in Dairy Husbandry.*
 A. DAVEY, B.S.A., *Lecturer in Bacteriology*
 R. G. KNOX, B.S.A., *Lecturer in Animal Husbandry.*
 A. C. WHEATLEY, B.A., *Lecturer in Chemistry.*
 E. C. MCLEAN, B.A., *Lecturer in English*
 E. E. REILLY, B.S.A., *Lecturer in Farm Economics.*
 JEAN RODDICK, *Instructor in Domestic Science.*
 ALTA V. DICKEY, *Instructor in Domestic Art.*
 GRACE CONOVER, B.S., *Instructor in Domestic Science.*
 BELLA MILLER, *Demonstrator in Dairying.*
 S. R. CURZON, B.S.A., *Demonstrator in Chemistry.*
 KATHARINE B. DOUGHTY, *Demonstrator in Domestic Art.*
 D. R. SANDS, B.S.A., *Demonstrator in Botany.*
 W. G. EVANS, B.S.A., *Demonstrator in Botany*
 J. A. FLOCK, B.S.A., *Demonstrator in Entomology*
 S. WATERMAN, B.S.A., *Demonstrator in Chemistry.*
 E. J. QUAIL, B.S.A., *Demonstrator in Farm Economics.*
 G. L. JARVIS, B.S.A., *Demonstrator in Apiculture.*
 F. McNALLY, B.S., *Instructor in Normal Methods.*
 T. J. McKINNEY, *Instructor in Dairying.*
 JEAN C. BRADLEY, *Demonstrator in Laundry and Household Administration.*
 A. ISABEL STRACHAN, *Supervisor of House Practice.*
 R. K. STRATFORD, B.S.A., M.S., *Fellow in Chemistry.*
 A. H. MUSGRAVE, B.S.A., *Instructor in Physical Training.*
 R. E. BLACH, *Instructor in English.*

RESEARCH STAFF

CHEMISTRY

- A. L. GIBSON, B.S.A., *Dairy Chemistry.*
 S. R. CURZON, B.S.A., *Food Investigation.*

M. ALICE PURDY, *Flour Testing.*

S. W. WATERMAN, B.S.A., *Soil Investigation*

FARM ECONOMICS

B. G. JENVEY, *Assistant Director of Surveys*

H. W. CLARK, B.S.A., *Assistant Director of Surveys.*

C. F. LUCKHAM, B.S.A., *Assistant Director of Cost Accounts.*

G. W. MICHAEL, B.S.A., *Chief Field Supervisor.*

ENUMERATORS

W. S. ROWE.

W. J. FAIRWEATHER.

C. W. RILEY, B.S.A.

G. H. EDWARDS, B.S.A.

FIELD HUSBANDRY

A. W. MASON, B.S.A., *Assistant Experimentalist.*

A. E. WHITESIDE, *Plant Selection.*

HORTICULTURE

C. C. EIDT, B.S.A.

POULTRY

E. S. SNYDER.

EXTENSION STAFF

J. F. FRANCIS, B.S.A., *Poultry Husbandry.*

E. S. SNYDER, B.S.A., *Assistant—Poultry Extension.*

J. E. RAMSDALE, *Landscape Draftsman.*

V. C. LOWELL, *District Supervisor of Drainage.*

W. P. SHOREY, B.S.A., *District Supervisor of Drainage.*

THE ONTARIO VETERINARY COLLEGE

In 1862, through the efforts of the late Hon Adam Fergusson of Woodhill and the late George Buckland, Professor of Agriculture in the University of Toronto, Professor Andrew Smith, a graduate of the Edinburgh Veterinary College, was appointed to give instruction in Veterinary Studies in the Province of Upper Canada. The Veterinary College thus established was later taken over by the Government of the Province of Ontario and affiliated with the University of Toronto, from which graduates of the College may receive the degree of Bachelor of Veterinary Science and Doctor of Veterinary Science. See Curriculum in Veterinary Science elsewhere in this volume.

COLLEGE STAFF AND SUBJECTS TAUGHT, 1920-21

- C. D. MCGILVRAY, V.S., M.D.V., *Contagious Diseases, Sanitary Service.*
 J. N. PRINGLE, M.R.C.V.S., B.V.Sc., *Sporadic Diseases, Dentistry, Lameness.*
 R. A. MCINTOSH, M.D.V., *Diseases of Cattle, Obstetrics, Special Therapeutics*
 W. J. R. FOWLER, B.V.Sc., *Surgery, Surgical Therapeutics, Restraint.*
 J. A. CAMPBELL, V.S., *Canine and Feline Diseases*
 H. H. ROSS, V.S., *Anatomy.*
 F. W. SCHOFIELD, D.V.Sc., *Preventive Medicine.*
 R. G. GWATKIN, V.S., B.V.Sc., *Bacteriology, Milk Hygiene.*
 H. E. BATT, V.S., *Histology, Laboratory Pathology.*
 C. MCINTOSH, B.V.Sc., *Meat Inspection.*
 D. KING SMITH, M.B., V.S., *Pathology.*
 E. A. MCCULLOCH, B.A., M.B., *Parasitology.*
 PAUL L. SCOTT, M.B., *Pharmacy.*
 C. A. TEMPLE, M.D., C.M., *Materia Medica.*
 F. C. BAILEY, B.S.A., *Animal Husbandry.*
 PROFESSOR J. J. R. MACLEOD, University of Toronto, *Physiology.*
 PROFESSOR J. HUNTER, University of Toronto, *Biochemistry.*
 PROFESSOR R. B. THOMSON, University of Toronto, *Botany.*
 PROFESSOR E. F. BURTON, University of Toronto, *Physics.*
 PROFESSOR F. B. ALLAN, University of Toronto, *Chemistry.*
 DYCE W. SAUNDERS, K.C., *Jurisprudence.*
 F. H. KIRKPATRICK, Ph.D., *Public Speaking.*
 H. W. BROWN, B.A., *Civics, Economics.*

APPENDIX

REGISTER OF STUDENTS, 1921-1922

FACULTY OF ARTS

First Year

C—University College;

V—Victoria College;

T—Trinity College;

M—St. Michael's College.

Name	Home Address	Name	Home Address
C Abbs, Miss M.	St. Catharines	T Beamish, Miss B. M., North Bay	
C Adye, E. R. G.	Toronto	C Beare, F. W.	Toronto
C Aitken, G.	Toronto	C Beatty, C. G.	Toronto
C Alderson, G. K. D.	Ingersoll	T Beaumont, Miss E.,	
C *Alexander, Miss L. B., Toronto		Glen Williams	
V Anderson, Miss B. A.	Parkhill	V Becker, R. P.	Toronto
C Anderson, Miss F. M.	Toronto	C Bell, C. A.	Walkerville
V Anderson, J. H.	Bracebride	C *Bell, G. L.	Cherry Valley
C Anderson, Miss J. I. C., Toronto		V Bennett, Miss G., Calgary, Alta.	
C Andrews, J.	Toronto	C Bennett, Miss M. U.	Toronto
C Angus, E. R.	Stratford	M Benoit, Miss E. M.	Petite Cote
C Angus, L. R.	Toronto	C Benson, M.	Toronto
C Antscher, I.	Roumania	C Benson, N.	Toronto
V Arbuthnot, H. D.	Toronto	C Berger, J. J.	Toronto
C Archibald, A. E.	Seaforth	V Bewell, J. F. A.	Unionville
V Argue, D. R.	Hiltonbeach	C Beyer, Miss B. M.	Toronto
T Armstrong, Miss E. E., Cobourg		C Bicknell, A. B.	Toronto
C Armstrong, Miss E. G., Toronto		C Black, Miss G. F.	Toronto
C Armstrong, Miss I. S.	Fergus	C Black, Miss M. A. B.	Ottawa
C *Armstrong, Miss M. M.,		C Black, R. T.	Toronto
Oakville		M Blanchard, Miss C. M., Lindsay	
C Atkinson, J. S.	Toronto	C Blanchard, Miss H. D., Toronto	
C Attwood, Miss M. A.	Ottawa	C Blundall, Miss J. B.	Toronto
C Ayer, H. M.	Toronto	C Bond, C. A.	Toronto
C Babbitt, G. M. W.	Toronto	C Bone, Miss M. E.	Toronto
C Bailey, G. M.	Toronto	C Booth, A.	Toronto
T Bailey, Miss M. A.	North Bay	C Booth, L. H.	Toronto
C Bailey, Miss M. E.	Maple	M Booth, Miss L. M.	Toronto
V Baker, Miss G. A.	Toronto	C *Booth, A. E.	Toronto
C *Baker, L. A.	Toronto	C Borsook, L.	Toronto
M Ball, N. J.	Vernon, B.C.	C Bowman, A. C.	Toronto
V Bannerman, G. F.	Toronto	C Boyd, J. R.	Toronto
C Barber, M. K.	Port Elgin	C Boyd, Miss M. S. R.	Toronto
C Barr, R. B. F.	Toronto	C *Boyd, W. K.	Flesherton
V Barrie, W. J. E.	Peterborough	C Bradshaw, E.	Toronto
C Barron, F. A.	Port Dover	C Bradshaw, Miss H. C.	Toronto
V Batchelor, Miss K. A.,		C Brady, J. M.	Toronto
Leamington		V Bravener, Miss M. S.	Whitby
C Bate, W. B.	Brampton	C Bredin, Miss J. I.	Toronto
V Bates, W. L.	Kobe, Japan	C Breithaupt, W.	Kitchener
V Bauslaugh, Miss H. B.,		M Brick, J. C.	Ennismore
Brantford		T Brillinger, E.	Chippawa
V Baxter, C. A.	Thamesville	C Brock, Miss G.	Winnipeg, Man.
C Bayne, Miss D. W.	Ottawa	C Brook, Miss G. E.	Simcoe
V Beach, M. L.	Toronto	C Brown, Miss H. I.	Toronto

*In attendance Michaelmas Term only.

Name	Home Address	Name	Home Address
C Brown, Miss J. G.	Toronto	V Colbeck, L. H.	Grand Valley
T Brown, Miss M. E.	Napanee	V Cole, Miss I. M.	Hamilton
C Brown, N. P. H.	Toronto	C *Cole, Miss L. C.	Mitchell
C Brownell, R. W.	Toronto	C *Coleman, E.	Hamilton
C Brownson, C. A.	Belleville	C Coleman, G. F.	Hamilton
V Brunt, W. R.	Hanover	C Coles, Miss M. E.	Toronto
V Bull, Miss R. L.	Weston	C Conboy, Miss V. L.	Toronto
C Bunt, F. W.	Flesherton	C Conn, K. B.	Ottawa
V Bugar, W. J.	Toronto	C Cook, Miss L. E.	Sarnia
M Burke, Miss D. M.	Toronto	V Cooke, Miss M. E.	Cobourg
M Burke, W. J.	Toronto	C Cooper, Miss R.	Toronto
C Burton, A. S.	Toronto	C Copeland, P. A.	Toronto
C Burton, Miss B. E.	Toronto	C *Corrigan, Miss B. M. H.,	
C Cahoon, N. C.	Bloomfield		Toronto
V Caldwell, Miss I. H.,		C Corson, Miss H.	Markham
	Currie's Crossing	C Cosentino, C. A.	Toronto
C Caldwell, K. H.	North Gower	M Cosgriff, J. J.	Hamilton
M Callaghan, M. E.	Toronto	M Costello, W. L.	Ennismore
V Campbell, D. M.	Toronto	V Cotton, Miss L. H.	Colborne
V Campbell, G. A.	Toronto	M Coughlin, Miss M. W.	Toronto
V Campbell, J. A.	Niagara Falls	C Cowan, F. P.	Sarnia
T Campbell, Miss J. K.	Thorold	C Crow, Miss M. W.	Toronto
C Campbell, Miss M. E.	Kirkfield	V Creighton, D. G.	Toronto
C Campbell, N. M.	Toronto	V Creighton, Miss M. I.	Toronto
V Cannom, Miss L. V. R.,	Cobourg	C Crossen, W. V.	Cobourg
V Carnaghan, Miss A. H.,		T Crosthwait, L. C.	Port Hope
	Scarboro P.O.	T Crouch, W. H. E.,	Aurora, N.Y.
C Carr, D. G.	Sarnia	C Crozier, Miss A. E.	Port Perry
M Carroll, Miss M. E.	Hamilton	C Crozier, Miss J.	Port Perry
V Carruthers, Miss R. H.,	Toronto	C Cuddy, D. J. A.	Amherstburg
V Carswell, J. A.	Toronto	V Cummings, Miss J. M. L.,	
C Case, A. W.	St. Catharines		Toronto
V Caswell, J. W.	Toronto	V Cutbush, G. W.	Toronto
C Chadwick, Miss M. A.,	Toronto	C Daly, M. A.	Napanee
T Chaffe, R. S.	Waterdown	T Daly, Miss M. I.	Napanee
M Chalue, Miss D. M.	Toronto	M Daly, M. J.	Farrellton, Que.
C Charles, Miss G.	Toronto	C Dashwood, F. A.	Toronto
C Charlesworth, Miss C. C.		V Davidson, Miss C. I.,	Burlington
	Toronto	C Davidson, N. E.	Cobourg
M *Chenier, L. G.	Blind River	V Davis, Miss E. A.,	St. Catharines
C Clark, Miss E. I.	Toronto	C Davison, Miss D. A.	Unionville
T Clark, H. H. S.	Thorold	T Daw, W. H.	Hamilton
V Clarke, Miss N. A.	Toronto	V Deacon, F. H.	Belleville
C Clarke, O.	Toronto	C Deans, Miss M. G.	Toronto
T Clarke, S. S.	Navan	T deLom, T. C. B.	Bruce Mines
C Class, H. E.	Elmira	C Denoon, J. W.	Toronto
M Clear, Miss H. G.	Ingersoll	C Denoon, Miss A. I.	Toronto
V Cleaver, Miss H. W.,	Burlington	V Derby, W. R.	Hanover
C *Code, G. A.	Toronto	V Devitt, Miss A. B.,	Bowmanville
M Coffee, Miss C. M.	Guelph	C Dickler, I. P.	Toronto
C Cohen, B. M.	Toronto	V Dickson, W. J. B.	Dundas
C Cohen, Miss E.	Toronto	V DiStasi, M.	Toronto

*In attendance, Michaelmas Term only.

Name	Home Address	Name	Home Address
C Dixon, R. M. ...	Peterborough	C Fockler, E. K. ...	Newmarket
T Docter, Miss G. M. ...	Toronto	V Follett, Miss E. G. ...	Toronto
C Dole, Miss D. L. ...	Toronto	C Forsyth, J. G. ...	Toronto
C Donald, Miss I. M. ...	Hamilton	V Foster, C. W. ...	Moir
C Donaldson, Miss M. C.,	Toronto	C Foster, J. P. ...	Windsor
V Dougall, H. E. ...	Oakville	C Frankel, Miss E. H. ...	Toronto
C Douglas, J. F. R. ...	Thorold	C Fraser, Miss C. C. ...	Toronto
M Duffy, F. G. ...	Hamilton	C Fraser, C. C. ...	Glen Sandfield
M Duggan, E. T. ...	Toronto	M Fraser, Miss J. ...	Ottawa
V Duncan, D. M. ...	Toronto	C Fraser, Miss M. A. M. ...	Ottawa
C Durham, Miss E.,	Niagara Falls	C Freedman, J.,	Stevensville, N.Y.
M Dwan, Miss W. L. ...	Toronto	C Freeman, Miss R. E. ...	Toronto
C Dworkin, B. ...	Toronto	C French, Miss D. J. ...	Toronto
M Dwyer, F. J. ...	Parry Sound	M Galimberti, G. M. ...	Toronto
M Dwyer, Miss H.,	West Moncton	C Garner, Miss D. R.,	Fernie, B.C.
M Dwyer, Miss M. H. ...	Guelph	M Garny, Miss G. ...	Toronto
C *Eickler, H. ...	Toronto	C Garrett, D. R. ...	Toronto
C Einbinder, E. ...	Toronto	C Gelber, E. ...	Toronto
V Ellis, Miss A. M. M.,	Gananoque	V Gibson, R. E. ...	Tillsonburg
T Ellis, C. O. ...	Wooler	V Gilbert, F. A. ...	Fingal
V Ellis, Miss H. F. ...	Winchester	C Gilfillan, Miss V. G. ...	Orono
C English, Miss E. M. ...	Toronto	C Goforth, W. W. ...	Honan, China
M Enright, C. T. ...	Toronto	C *Golding, Mrs. A. J. ...	Toronto
M Enright, Miss M. ...	Toronto	C Goldstein, Miss E. B. ...	Toronto
C Epstein, L. ...	Toronto	M Good, R. ...	Toronto
V Evans, Miss F. K. W.,	Toronto	T Goodison, Miss V. F.,	Streetsville
V Everett, Miss M. L. ...	Iroquois	V Goulding, Miss R. G. ...	Toronto
C Ewart, Miss A. H. ...	Toronto	C Graesser, F. R. ...	Guelph
C Fairbairn, Miss H. ...	Toronto	V Grafton, H. F. P. ...	Barrie
T Fairweather, Miss M. L.,	Ottawa	V Graham, Miss D. L. ...	Ottawa
C Falby, B. C. ...	Grant	V Graham, W. M. ...	Toronto
V Farley, Miss E. E. ...	Trenton	V Grant, Miss A. ...	Toronto
C Farncomb, F. J. ...	Toronto	C Grant, Miss M. M. ...	Toronto
M Farrell, J. B. ...	Toronto	C *Gray, Miss A. B. ...	Toronto
C Feeley, Miss K. L. ...	Toronto	C Gray, Miss A. P. ...	Toronto
C Fenwick, Miss D. A. ...	Toronto	C Green, Miss E. W. ...	Toronto
C Ferguson, F. G. ...	Madoc	C Green, Miss M. W.,	Sault Ste Marie
V Ferguson, J. D. ...	Toronto	C Greenizen, Miss H. M.,	Petrolia
V Ferguson, W. M. ...	Toronto	T Gregory, Miss E. G.,	St. Catharines
C Fetterly, Miss M. E.,	Winchester		
C Fidler, Miss M. ...	Toronto	V Gregory, R. W. ...	Walkerville
V Field, H. W. ...	Maxwell	C Greig, F. C. W. ...	Toronto
T Fierheller, Miss G. V. ...	Minden	V Griffith, E. N. T. ...	Stratford
C Findlay, D. H.,	Carleton Place	C Griffith, J. L. ...	Niagara Falls
M Finegan, K. R. ...	Toronto	C Groat, D. L. ...	Norwich
M Flaharty, J. F. ...	Alton	V Gundy, E. M. ...	Toronto
C Fleming, D. M. ...	Galt	C Gunn, Miss L. J. ...	Toronto
C Fleming, R. H. ...	Grimsby	C Guy, H. L. ...	Toronto
V Fletcher, Miss I. P. ...	Toronto	V Hagerman, Miss M. A.,	Toronto
M Fleury, Miss D. H. ...	Toronto	C Haisman, Miss I. O. ...	Toronto
V Flindall, O. R. ...	Trenton		
T Floyd, T. H. ...	Toronto		

*In attendance Michaelmas Term only.

Name	Home Address	Name	Home Address
C Haley, Miss M. E.	Toronto	C Hough, H. B.	Amherstburg
V Hall, C. H.	Toronto	M Houlahan, Miss G.	Toronto
C Hall, H. G.	Toronto	C Howard, Miss H. M.	Toronto
C Halliday, Miss M. A.	Listowel	V Howson, Miss L. C.	Norwood
M Halloran, Miss M. B.	Hamilton	V Hubbell, Miss B.H., Smith's Falls	
V Hamilton, A. D. F.	Toronto	V Hudson, F. E.	Toronto
C Hanes, C. S.	Willowdale	C Hull, E. H.	Hamilton
M Hannan, Miss C.	Toronto	C Hull, Miss M. C.	Toronto
V Hanson, Miss N. L.,		C Hunt, Miss G.	Toronto
	Dixon Corners	M Hunt, G. J.	Toronto
C Hargreaves, Miss F. I.	Toronto	C Hunter, A. F.	Toronto
V Harker, G. C.	Toronto	V Hunter, Miss A. M.	Millgrove
C Harkness, Miss J. W.	Toronto	C Hunter, Miss L. H.	Toronto
C Harkness, Miss M. G.	Toronto	V Hunter, R. S.	Kaslo, B.C.
C *Harper, Miss P.	Waterloo	V Hussey, L., Clarke's Beach, Nfld.	
V Harris, P. M.	Toronto	C Huth, Miss M. I.	Stayner
C Harris, Miss R. A.	Toronto	C Hutner, L. M.	Toronto
C Harris, Miss R. C.	Toronto	C Hutton, Miss S. B.	Tilbury
C Harris, W. C.	Toronto	V Ireland, L. R.	Beeton
C Harrison, C. A., Lockport, N.Y.		C Ironside, Miss B. H.	Thedford
C Hart, J. L.	Toronto	T Irvine, Miss A. M.	Selby
V Hartwell, Miss R. K.,		C Irwin, Miss K. P.	Toronto
	Chengtu, China	C Jack, J. C.	Cobden
V Harvey, J. M.	Exeter	C Jackson, Miss A. A. E.,	Toronto
M Hayes, Miss A. T.	Toronto	C Jackson, M. M.	Toronto
C Hayward, R. E. G.	Haileybury	M James, Miss C. F.	Toronto
M Healy, T. E.	Atherley	C James, C. F.	Toronto
T Hearn, Miss M. D. B.,		M James, J. W.	Toronto
	Winnipeg, Man.	C Jamieson, Miss L. I.	Toronto
C Heinonen, Miss V. S.,		V Jenking, Miss R. I.	Toronto
	Helsingfors, Finland	C Jenkins, C. H.	Winnipeg, Man.
V Hendershot, Miss G. A.,		C Jennings, G. L.	Toronto
	Hamilton	V Jerome, Miss E. A.	Dundas
M Heney, V. A.	Arnprior	C Johnson, A. E.	Carcross, Y.T.
M Heney, Miss M. M.	Arnprior	C Johnston, Miss D. M.	Toronto
C Henshaw, V.I.M.,	Wolfville, N.S.	C Johnston, E. M.	Collingwood
C Hetherington, Miss O. I.,	Toronto	C Johnston, Miss R. W.	Toronto
C Hethrington, H.	Toronto	C Jones, Miss B. I.	Toronto
C Hewitt, F. W.	Toronto	C Joy, R. S.	Toronto
M Hickey, Miss K. F.	Toronto	V Junkin, W. R.	Toronto
C Hicks, Miss B. A.	Brantford	C Kadota, K.	Toronto
C Hicks, Miss J. M.	Kars	C Kaplan, Miss I. S.	Toronto
C *Hiles, V. M.	Atwood	M Kastner, Miss E. C.	Toronto
V Hill, A. S. H.	Windsor	C Kaye, W. A.	Bracebridge
C Hill, G. E.	Toronto	V Keenleyside, E. A.,	Regina, Sask.
C Hill, Miss G. E.	Toronto	C Keens, Miss M. M.	Toronto
V Hiltz, Miss A. E.	Toronto	M Kehoe, Miss C. E.	Bolton
C Hird, Miss E.	Wallaceburg	M Kehoe, Miss V. W.	Bolton
V Hoidge, Miss A. M.	Toronto	C Kellman, Miss H. A.,	
C Holmes, B. T.	Toronto		Bridgetown, B.W.I.
C *Home, Miss H. B.	Toronto	M *Kelly, J. F.	Chatsworth
C Horne, Miss H. M. E.	Toronto	V Kendrick, T. D. H.	Toronto

*In attendance Michaelmas Term only.

Name	Home Address	Name	Home Address
C Kenen, I. L.	Toronto	M McCarthy, Miss C. T. . .	Toronto
M Kernahan, Miss H. M. . .	Toronto	M McCarthy, Miss E. M. . .	Windsor
C Kilpatrick, O. A.	Shelburne	C McClinton, Miss I. . .	Terra Nova
T King, C. J.	Toronto	C McClure, A. D.	Chesley
M Kingsley, Miss N.	Lindsay	C McConkey, N. R.	Stratford
C Kingsmill, A. S.	London	M McCormick, J. B.	Toronto
C Kirk, R. E.	Woodstock	C McCullagh, P. F.	Cobourg
T Kister, C. V.	Chippewa	M MacDonald, D. J.	Alexandria
C Kitchen, I. D.	Toronto	C McDonald, Miss E. M. . . .	King
C Klinck, I. J.	Elmira	C Macdonald, G.	Lewis, Scotland
C Kniveton, Miss M. J. . . .	Toronto	C Macdonald, L. G.	Fort William
C Knowles, R. E., Jr.	Toronto	C McDonald, W. E.	Glencoe
M Knowlton, A. J.	Toronto	M McDonnell, Miss C. G. . . .	Toronto
C Krakowski, C. M.	Hamilton	M McDonnell, Miss H.	Toronto
C Landau, J.	Toronto	C MacEachern, F.	Eldon Station
V Lane, W. S.	Toronto	C MacEwan, Miss M. J.,	Goderich
V Langford, H. E.,	Calgary, Alta.	M McGinn, Miss M. M.,	Niagara-on-the-Lake
M Larochelle, Miss B. V. . .	Ottawa	M McGovern, Miss K.	Toronto
M Latchford, Miss D.	Toronto	M McGreevy, P.	Toronto
C Latchford, J. S.	Toronto	C McHenry, Miss C. H. E.,	Toronto
V Lavell, Miss M. M.	Toronto	V MacInnes, Miss J. H. . . .	Iroquois
C Lavis, D. O.	Port Whitby	V McJannet, Miss E. D.,	Gravenhurst
C Law, C. A. G.	Toronto	V McKay, Miss B. H.	Woodstock
C Lawson, F. S.	Toronto	C McKay, D. A.	Windsor
C *Lawson, Miss M.G.,	Georgetown	V McKenzie, Miss M. F.,	Hanley, Sask.
T Lazier, H. D. F.	Hamilton	C *MacKenzie, W. K.	Toronto
C Leary, A. E.	Toronto	C McKeown, C. T.	Orangeville
M LeBel, Miss C.	Sarnia	C MacKinnon, Miss M. C.,	Cranbrook, B.C.
V Lee, W. E. L.	Stouffville	M McKune, Miss E. F.	Hamilton
V Lewis, L. H.	Oxbow, Sask.	C MacLean, K. A.	Harriston
C Liggett, M. J.	Guelph	C MacLean, Miss M. D. . . .	Lindsay
C Lind, Miss J. R.	Toronto	C MacLean, Miss R. M.	Toronto
V Lindsay, E. H.	Hagersville	T McLennan, Miss E. Z. L.,	Beaverton
C Lindsay, J. G.	Toronto	C McLeod, Miss A. F.	Toronto
C Lindzon, M.	Toronto	C McLeod, G. P.	Toronto
M Lippert, H. J.	Kitchener	C MacMillan, C.	Holyrood
C Lipson, A.	Toronto	C McMillan, D. M.	Finch
C Litster, Miss M. I.,	Burk's Falls	V McNair, G. J.	Toronto
C Littlejohn, R. H.	Toronto	M McNally, Miss K. E.	Utterson
V Livermore, E. S.	Clinton	C McPhail, A.	Holstein
C Locheed, Miss I. J. B.,	Hamilton	V MacPhee, Miss F. W.,	New York City
M Loftus, E. F.	Toronto	C Macpherson, A. F.	Toronto
C Logan, Miss C. L.	Toronto	C Macpherson, A. G.,	Orangeville
C Luke, M. C.	Ottawa	C McPherson, G. A.	Toronto
V Luke, Miss S. M.	Toronto	C McTaggart, Miss J.	Toronto
C Lusty, E. H.	Rodney	C McTaggart, K. W.	Toronto
C Lyall, Miss J. E.,	Smith's Falls	C McVicar, D. H.	Inwood
	Niagara-on-the-Lake		
M Lyons, J. J.	Ottawa		
M Lyons, W. J.	Ottawa		
C McBride, Miss M. E.,	Smith's Falls		

*In attendance Michaelmas Term only.

APPENDIX

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Name	Home Address	Name	Home Address
V Mabee, B. S.	Gananoque	C Mowry, A. E.	Toronto
C Madill, Miss D. M.,	St. Catharines	C Murhead, A. R.	Toronto
C Madorsky, Miss B.	Toronto	C Mumpel, J.	Toronto
M Mahon, J. A.	Aberfoyle	M Murphy, Miss E. T. ..	Arnprior
C Maier, C. J.	Hamilton	M Murphy, Miss H. C.,	Mount Forest
C Malone, J. J.	Mimico Beach	M Murphy, Joseph P.,	Fort Willami
V Mann, W. E.	Brantford	V Murphy, L. C.	Colborne
C Manser, E. E.	Toronto	C Murphy, Miss M. A.,	Wardsville
C Marshall, B. S.	Orillia	M Murrode, Miss M.	Toronto
M Martin, B. J.	Toronto	M Murtha, T. J.	Toronto
M Martin, P. J. J.	Pembroke	C Muscovitch, H. A.	Toronto
C Martin, W. C.	Toronto	C Musk, F. M., Prince Albert, Sask.	
M Martin, W. S., Whitehorse, Y.T.		V Neal, Miss F. L.	Toronto
V Mason, T. G.	Toronto	C Nesbitt, Miss C. L. A.	Toronto
C Matheson, J. E., Vancouver, B.C.		C Nettleton, Miss W.	Toronto
C Mathieu, A. J.	Fort Frances	M Neylan, F. E.	Midland
C Maxwell, R. A.	Toronto	C Nichol, Miss F. I.	Durham
C Mayhew, Miss A. E., Huntsville		C Nicholson, A. M.	Lucknow
C Mearns, Miss H. M.	Toronto	V Nickle, Miss W. G. E.	Odessa
V Medcalf, L. C.	Toronto	V Norman, Miss G. L.,	Shinshu, Japan
C Meek, Miss E. R.	St. Thomas	C Norsworthy, Miss H. A.,	St. Thomas
C Melhuish, Miss G. I.	Toronto	C Northway, Miss K.	Toronto
C Menzies, Miss I. R.	Toronto	V Oaks, Miss B. R.	Preston
C Metford, E. H.	Toronto	M O'Boyle, B. J.	Dundas
V Mews, Miss O. F., St. Johns, Nfld		M O'Brien, J. E.	Hamilton
C Middlebro, Miss G., Owen Sound		M O'Donnell, Miss S.	Toronto
C Milkin, M.	Toronto	M O'Neil, M. C.	Ottawa
C Millar, B. S.	Woodstock	M O'Reilly, D. O.	Copper Cliff
C Miller, Miss A. M.	Toronto	T Ormsby, Miss N. A.	Leaside
C Miller, Miss A. R.	Toronto	V Orr, W. R.	Glencairn
C Miller, Miss K. M. O., Toronto		C Owens, F. R. S.	Toronto
C *Mills, Miss M. L.	Hamilton	C Park, Miss I. M.	Toronto
V Mills, R. S.	Toronto	C Parker, Miss M.	Stratford
C Mills, W. J. P.	Toronto	V Parr, R. H.	Melbourne
V Milne, J. E.	Hamilton	C Pasternack, P. I.	Toronto
C Milner, J. B.	Toronto	C Paton, Miss H. I.	Toronto
C Minden, H. A.	Hamilton	T Paterson, J. A.	Toronto
C Mitchell, A. L. A.	Toronto	T Patterson, Miss E. M.	Paris
C Mitchell, G. C.	Flesherton	C Patterson, W. E.	Toronto
C Mitchell, Miss P. W.	Toronto	C Pattison, Miss I. E.	Toronto
M Mogan, F.	Toronto	C Pequegnat, R. J.	Guelph
C Monypenny, Miss C. F., Toronto		V Percival, Miss M. D.	Toronto
M Moore, Miss C. B.	Toronto	C Perney, Miss M. E.	Hamilton
V Moore, E. A.	Clarksburg	V Perry, A. E.	Toronto
T Moore, Miss M. H.	Toronto	C Perry, K. R.	Welland
C Morden, Miss A. M.,	Niagara Falls S.	C Perry, R. H.	Welland
C Morden, Miss E. D.	Hamilton	C Pezzack, J.	Toronto
T Morrison, C. M., Vancouver, B.C.		V Philp, W. R.	Colborne
V Morrow, B. S.	Toronto	C Phin, J. R.	Toronto
C Morwick, Miss I.	Hamilton		
T Moss, J. W.	Winnipeg, Man.		

*In attendance Michaelmas Term only.

Name	Home Address	Name	Home Address
C Pidgeon, A. L.	Toronto	C Rubin, R.	Toronto
C *Playle, G. H.	Toronto	C Rumac, J.	Toronto
C Pollack, J.	Toronto	V Rumball, L. W.	Mimico Beach
C Porter, J. C.	Toronto	M Runstadler, Miss M.	Toronto
M Power, Miss J.	Toronto	V Rushton, J. L.	Port Elgin
T Prewer, Miss A. E.	Chapleau	V Rutnam, R. L.	London
V Pyne, C. E.	Toronto	V Sadler, Miss M. M.	Lindsay
M Quinlan, H. F.	Trout Creek	V Salmoni, Miss H. P.,	Kingsville
C Rachlin, H.	Toronto	C Salter, P. E.	Toronto
C Raikes, Miss C. C.	Barrie	T Sanders, Miss D. M.	Norwich
C Ramsay, Miss B.,	Calgary, Alta.	C Sanderson, Miss J.	Toronto
C Raney, Miss A. H.	Toronto	V Sandy, Miss D. A.	Omeme
C Rapley, Miss M. C.	Strathroy	C Saul, Miss M. E.	Toronto
C Read, Miss M. A.	Peterborough	C Schatz, T. H.	Toronto
C Reading, Miss J. D.	Toronto	V Schlichter, Miss N. M.	Bright
C Reeves, Miss M.	Fort Frances	C Schmidt, Miss E. M.	Stratford
C Reid, F. M.	Simcoe	C Schroeder, G. D.	Hanover
C Reid, L. D.	Toronto	C Scilly, A. J.	Welland Junction
C Rhodes, J. B.	Toronto	C Scott, A. C.	Toronto
C Richardson, A. L. A.	Toronto	C ‡Scott, C.	Galt
C Richardson, H. B.,	Proton Sta.	C Scott, C. B. C.	Toronto
C Ritchie, Miss J. H.	Toronto	C Seim, I. E.	Mount Forest
C Robb, Miss E. C.	Beaverton	M Shannon, Miss C. A.,	Biscotasing
C Roberts, C. A. M.	Toronto	M Sharpe, G. V.	Toronto
V Roberts, Miss J. S.	Toronto	C Shaw, G. P.	Toronto
C Roberts, P. H.	Toronto	C *Shaw, H. G.,	Kamloops, B.C.
T Robertson, A. B.,	Victoria, B.C.	M Sheahan, Miss R. M.,	
C Robertson, Miss E. D.,			St. Catharines
	Victoria, B.C.	C Shearson, C. A.	Toronto
V Robertson, Miss F. G.,	Iroquois	C Sheppard, G. R.	Toronto
C Robertson, W. G.	Halifax, N.S.	C Shepperson, Miss N. F.,	
C Robinson, W. E.	Toronto		Brantford
C Rochester, R. B.	Toronto	V Shields, G. A.	Innerkip
C Rodgers, W. H., Jr.	Atlanta, Ga.	C Shumer, E. C.	Toronto
C Rodgers, Miss W. L.	Toronto	C Silverthorn, Miss M. I.,	Islington
C Rogers, Miss D. M.	Toronto	C Silverthorn, R. F.	Islington
C Rogers, K. H.	Winnipeg, Man.	C Silvertown, S.	Toronto
V Rogers, R. R.	Norwood	C Simpson, G. H. D.	Ottawa
C Rogow, H. A.	Toronto	T Sinclair, Miss G. H.,	Tillsonburg
M ‡Roney, R. J.	Pembroke	C Sinclair, J. V.	Barrie
C Root, Miss S. B.	Dunnville	V Sine, Miss N. M.	Belleville
V Rose, Miss G. R. F.,	Port Perry	V Sine, Miss P. L.	Gananoque
C Rose, H. J.	Toronto	V Sinkford, W. J.,	Bluefield, W.Va.
C Ross, Miss E. H.	Toronto	V Sipprell, Miss T. R.,	
C Ross, Miss M. H.	Toronto		Victoria, B.C.
C Ross, Miss M. T.	Brussels	C Skaith, A. L.	Toronto
C Ross, Miss P. A.	Hawkesbury	V Slater, Miss E. S.	Toronto
V Rossister, J. H.,	Sault Ste. Marie	V Slater, Miss P. E.	Waterdown
C Roth, S.	Toronto	V Smith, A. E.	Toronto
C *Rowan, G. M.	Toronto	C Smith, E. G.	Pembroke
C Rowan, Miss K. G.	Toronto	C Smith, Miss G. E.,	
V Rowell, Miss M. C.	Toronto		St. Catharines

*In attendance Michaelmas Term only.

‡Dispensation Michaelmas Term

APPENDIX

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Name	Home Address	Name	Home Address
C Smith, Miss G. S.	Stouffville	V Thompson, Miss F. L.	Toronto
M Smith, Miss M. D.	Toronto	C Thomson, C. S.	Toronto
C Smith, S. A.	Toronto	C Thomson, Miss H. J.	Toronto
C Smye, F. H.	Hamilton	T Thomson, J. H.,	Rothsay, N.B.
V Snider, Miss L. Y.	St. Jacob's	M Thomson, V. A.	Toronto
V Snyder, Miss G.	St. Jacob's	C Thorburn, Miss M. T.,	Niagara Falls
C Snyder, S. A.	Waterloo	C Thorold, Miss M. A.	Toronto
C Solomon, Miss F. D.	Brighton	C Tilley, E. P.	Bowmanville
C Somerville, C. R., Jr.	London	C Tilley, Miss M. Y.	Toronto
C Spain, L.	Toronto	C Toole, H. A.	Port Dover
C Spedding, Miss A. K.,	North Bay	V Tremaine, Miss A. M.	Toronto
C Spence, W. F.	Toronto	C Trent, Miss E. F.	Toronto
C Spragge, W.	Toronto	C Troop, Miss E. J.	Ottawa
C Sprott, Miss R. W.	Toronto	C Trott, G. T.	Oil City
V Squire, Miss R. S.	Norwood	V Tuck, C. P.	Oakville
C Stagg, Miss E. A.	Brockville	V Tufford, F. D.	St. Thomas
C Stagg, R. G.	Toronto	M Tunney, J. V.,	New York, N.Y.
V Stalter, O. R.	Oshawa	V Turnbull, R. H.	Dundas
C Standing, Miss E. M.,	Brantford	C Turnbull, W. C.	Toronto
V Starr, Miss M. A. E.	Toronto	V Turner, W. H.	Grand Valley
C Start, R. K.	Toronto	V Tyndall, C. L.	Clinton
C Stern, Miss B.	Toronto	C Unsworth, N. R.	Toronto
C Stevens, Miss M. B.,	Port Elgin	V Uren, Miss H. E.	Mitchell
V Stevenson, S. E.	Melbourne	V Vanderburgh, F. R.	Maple
V Stewart, C. M.	Regina, Sask.	C Vanstone, Miss J.	Wingham
V Stinson, Miss M. G.,	Peterboro	C Varty, J. A.	Markdale
C Stirling, Miss J. M.	Agincourt	C Venning, H. T.	Toronto
C Stirrett, A. G.	Sarnia	C Venning, L. deC.	Toronto
C *Stiver, Miss H. M.	Unionville	C Vercoe, Miss K.	Toronto
C Stoddart, Miss H. G.	Toronto	C Verity, Miss, F. E.	Brantford
C Stogdill, C. G.	Toronto	C Vickers, W. M.	Toronto
C Stone, W. J.	Toronto	V Vokes, Miss M. C.	Toronto
C Strauss, N.	Toronto	C Waddell, W. L. M.	Ballinafad
C Stubbs, Miss B. E.	Toronto	C Wagg, R. G.	Mount Albert
C Stubbs, Miss C. E.	Toronto	C Walker, B. R.	Toronto
S Sullivan, M. V.,	St. Catharines	V Walker, Miss M. C.,	Grand Bend
C Sutherland, Miss F. H.,	Petrollea	T Walker, R. P.	Toronto
C Sutton, Miss E. E.	Toronto	V Walkom, W. F.	Mitchell
T Swayne, W. G. H.	Belleville	C Wallace, Miss E.	Goderich
V Tabor, W. D.	Curries	C Wallace, F. E. D.	Brantford
C Talbot, Miss W. V.,	Calgary, Alta.	T Wallace, Miss H. B.	Napanee
M Tallon, W. F.	Cornwall	V Wallace, Miss M.,	Kamsack, Sask.
C Tanton, Miss M. L.	Toronto	C Wallace, Miss M. E.,	Burgessville
C Taylor, Miss C. L.	Toronto	T Wallace, Miss M. K.	Toronto
C Taylor, Miss G. G.	Hull, Que.	C Wallace, Miss M. V.	Toronto
C Taylor, Miss H. A.	Belleville	M Walsh, Miss M. M.	Lindsay
C Taylor, H. M.	Bracebridge	V Walton, Miss V.	Fort George
T Taylor, H. N.	St. Catharines	V Walwyn, J. P.	Weston
C Tesky, J. W.	Toronto	C Wanamaker, Miss H. E.,	Niagara Falls
V Thomas, Miss A. M.,	Niagara Falls		
T Thomas, W. L.	Newcastle		

*In attendance Michaelmas Term only.

Name	Home Address	Name	Home Address
C Ward, Miss E. M.	Toronto	C Wilkie, J. D.	Toronto
C Wardell, Miss H. G.	Toronto	V Willard, Miss E. G., St. Mary's	
C Watkins, W. W. R.	Toronto	C Williams, Miss G. F.	Toronto
C Watson, R. J.	Toronto	V Williams, P. E.	Toronto
C *Watson, W. B.	Toronto	C Willoughby, W. F.	Guelph
C Watson, W. R.	Paris	C Wilson, A. McD.	Hamilton
C Watt, H. N.	Palmerston	T Wilson, Miss A. N.,	
C Waugh, Miss I. L.	Toronto	Somenos, B.C.	
C Weatherhead, Miss D.	Toronto	V Wilson, Miss C. E.	Toronto
C Webb, G. W. M.	Toronto	T Wilson, D.	Oakville
C Weber, W. C.	Windsor	T *Wilson, Miss D. F. N.,	Tilbury
V Wedlake, G. N.	Brantford	V Wilson, H. G.	Toronto
C Weinberg, B.	Toronto	C Wise, Miss E. C.	Toronto
C Weir, Miss N. P.	Toronto	C Wiseberg, M.	Toronto
C Weiss, H.	Toronto	C Wolfisch, I.	Toronto
C Weissbrod, Miss M. E.,	Toronto	C Wolfson, C. C.	Toronto
C Wells, K.	Toronto	C Wolfson, N.	Toronto
V Wells, W. I.	Campbellton	V Wood, B. F., Pr. Albert, Sask.	
C West, Miss J. R.	Toronto	V Wood, J. H.	Millbrook
C West, Miss P. M.	Toronto	C Wood, Miss M.	Toronto
V Westington, M. M.	Bewdley	V Woods, W. L.	Toronto
C Weston, Miss A. F.	Toronto	V Woolnough, Miss V. G.,	
C Whaley, A. C.	Embro	Niagara Falls	
M Whelen, J. H.	Westport	V Wright, H. L.	Hamilton
C White, R.	Toronto	C Wright, Miss H. M.	Toronto
C White, R. G., Moose Jaw, Sask.		C Wrong, Miss A. H.	Toronto
C Whitson, Miss J. M.	Toronto	M Yates, Miss C.	New Liskeard
C Whitton, W. C.	Alvinston	M Young, Miss K. A.	Toronto
C Wiancko, Miss F. H.	Toronto	C Young, R. A.	Toronto
C Wickson, Miss M. E.	Toronto	V Young, Miss R. L.	Toronto
C Weiner, A. B.	Toronto	C Younger, Miss R. E.	Toronto

Summary—First Year

University College	505
Victoria College	187
Trinity College	48
St. Michael's College	101
Total	841

Second Year

T—Trinity College;	M—St. Michael's College;
C—University College;	V—Victoria College.
V Adams, Miss N. G.	Toronto
C Alexander, H. M., St. John, N.B.	
C Allison, Miss J. L.	Winnipeg, Man.
C Anderson, Miss H. E.	Toronto
C Armitage, Miss D.	Toronto
C Armstrong, J. W.	Allandale
C Asman, Miss M. L.	Toronto
V Atchison, Miss I. R.,	
V Atkey, R. S.	Owen Sound
V Attridge, C. G.	Waterdown
V Augustine, Miss H. G.,	
Port Colborne	
C Bagley, Miss M. M.	Toronto

*In attendance Michaelmas Term only.

Name	Home Address	Name	Home Address
C Baird, Miss K.	Chatham	C Conn, Miss M. D.	Sarnia
C Ball, Miss H. M.	Harriston	V Cooke, J. P.	Fullerton
M Barnett, L. F.	St. Catharines	C Copping, Miss M. E.,	Fort William
C Barnhardt, E. H.	Oro Station	V Couch, H. N.	Strathroy
C Barrett, Miss M. L.	Ottawa	C Coulter, Miss J. I.	Alliston
V Bartlett, F. L.	Toronto	C Crombie, Miss J. M.	Toronto
M Bauer, Miss A. M.	Waterloo	C Cross, T. L.	Edmonton, Alta.
T Beaumont, H.	Glen Williams	C Crow, Miss L. E.	Chatham
C Beck, F. A.	Penetanguishene	C Crozier, E.	Toronto
V Beecroft, E. A.	Whitby	C Cryer, J.	Charing Cross
M Begley, C. J.	Peterborough	C Crysdale, J. P.	Toronto
T Bell, J. A. M.	Humberstone	C Cuddy, Miss W. E.,	Amherstburg
C Bell, W. G.	Britannia Bay	V Culham, Miss M.	Toronto
C Belyea, G. H. V.,	St. John, N.B.	V Cunningham, F. J. G.,	Regina, Sask.
C Bennett, H. C.	Toronto	C Currie, P. N. W.	Ottawa
T Bettes, Miss H. T.,	Jacksonville, Fla.	C Dagger, Miss E. M. A.,	Toronto
C Billings, A. B.	Vernon, B.C.	V Daly, E. A.	London
C Blackburn, Miss M. E.,	Toronto	C Darke, C. T.	Regina
C Blackwell, L. E.	Toronto	V Davidson, Miss S. M.,	Regina, Sask.
V Blair, J. W. K.	Arthur	V Davies, Miss K. M.	Toronto
C Blake, V. B.	Toronto	C Davis, J. A.	Grand Forks, B.C.
V Blum, W. O.	Owen Sound	V Depew, Miss Margaret E.,	Paris
C Bonnell, F. H.	Fernie, B.C.	V Depew, Miss Mary E.	Paris
C Booth, W. G.	Toronto	M Dobell, Miss M. M.	Toronto
C Boucher, G. R.	Carp	C Doig, W. P.	Wroxeter
C Bovaird, Miss G.	Brampton	V Domm, G. O.	Ayton
V Boyle, Miss E. J.	Toronto	C Douglas, J. W.	Toronto
C Brisbin, Miss J. M.	Harriston	V Douglas, L. H.	Welland
C Brodie, Miss L. T.	Toronto	C Doxsee, M. I.	Toronto
C Brown, Miss A. J.	Toronto	C Dunbar, Miss K. S.	Guelph
C Brown, Miss A. M. B.,	Toronto	M Dunnigan, Miss E. C.	Toronto
C Bryce, G. M.	Toronto	C Edmonds, Miss M. B.,	St. Thomas
C Buffam, Miss M. C. W.	Perth	C Edwards, Miss M. S.,	Gananoque
M Burke, Miss E. M.	Ottawa	M Ellard, B. A.	Toronto
M Burke, J. V.	Toronto	V Elliot, Miss J. B.,	Peterborough
C Burns, D. K.	Pembroke	V Elliott, Miss K. E.	New York
M Campbell, Miss M. R.,	Hamilton	T Ellis, J. D.	Mount Forest
C Carmichael, Miss M. F.,	Toronto	C Ellis, Miss O. E.	Toronto
C Carson, J.	Gamebridge	V Endicott, N. J.	Toronto
C Carson, Miss N. I.	Toronto	C English, Miss F. P.	Toronto
C Carswell, Miss M. S.	Toronto	C Entwistle, A. W.	Guelph
V Carter, Miss R. A.	Galt	V Fawcett, Miss M. B. R.,	Toronto
C Cassidy, F. C.	Toronto	V Fenwick, Miss M. M.,	St. John, Nfld.
M Caufield, J. A. A.	Monteith	T Ferguson, S. C.,	Macleod, Alta.
T Cayley, H. C.	Toronto	C Field, A. C. H.	Cobourg
C Chaikoff, I.	Toronto	C Finlayson, R. A.	Campbellton
C Chambers, Miss E. C.	Toronto	V Finnie, A. G.	Baillieboro
C Clark, J. F.	Ottawa	C Fitzgerald, Miss E. K.,	Petrolia
V Clarke, W. H.	Lindsay	C Fitzgerald, F. G.,	St. Catharines
M Cloutier, A. L.	North Bay	C Flynn, Miss A.	St. Catharines
V Cocks, Miss L. A.	Winona		
M Coffey, Miss G. A.	Toronto		
V Colley, A. K.	Toronto		

Name	Home Address	Name	Home Address
C Foex, Miss B. M.	Chatham	C Hewetson, H. W.	Toronto
C Foran, Miss M. L.	St. George	C Higgins, Miss E. A.	Clinton
M Forner, B. N.	Toronto	T Hill, L. C.	Hespeler
C Forster, L. C.	St. Catharines	V Hilliard, Miss A. M.,	Morrisburg
C Foster, Miss M. G.	Listowel	V Hilliard, T. A.	Kitchener
V Franks, W. R.	Regina, Sask.	C Hislop, Miss E. B.	Stratford
C Freedman, J.	Toronto	C Hislop, Miss E. E.	Toronto
C Freyseng, W. P.	Toronto	V Hollnake, H. A.	Hamilton
C Fulford, G. T.	Brockville	C Holmes, W.M.,	Moose Jaw, Sask.
C Fulford, R. T.	Brockville	V Hone, P. W.	Petrolia
C Fuller, Miss O. L.	Sarnia	V Hope, H. B.	Milliken
M Garden, Miss M. E.	Peterboro	C Horal, J.	Muirkirk
C Gardiner, Miss A. C. E.,	Mount Forest	C *Horrell, Miss J. I.	Midland
M Gavard, W. L.	Thorold	C Howard, B. W.	Ottawa
C Gavin, Miss E. G.	Toronto	C Howell, Miss M. K.	Toronto
V Gibbons, J. G.	Regina, Sask.	C Huband, A. R.	Ottawa
C Gibson, Miss F. E. P.,	Oakville	C Hugill, H. R.	Toronto
V Gillan, Miss E. S.	Pakenham	V *Hull, Miss E. G. A.	Toronto
T Gillard, Miss A. E.,	Melville, Sask.	C Hunt, Miss D. B.	Toronto
C Glassey, C.	Toronto	V Hunt, Miss E. L.	Lanark
C Gogo, Miss P. L. M.	Cornwall	V Hunt, Miss M. K.	Toronto
C Gooderham, Miss V. L.	Toronto	C Hunter, Miss A. B.	Toronto
V Gosse, R. E.	Petites, Nfld.	C Hurst, Miss H. J.	Alliston
V Graham, E. H.	Toronto	T Huston, Miss M. D.	Glencoe
T Graham, G. C.	Toronto	C Hwang, L. T.	Kashing, China
V Graham, Miss G. H.	Toronto	C Hyde, J.,	Pincher Creek, Alta.
C Graham, Miss L. G.	Bothwell	C Innes, Miss J. B.	Toronto
C Grant, W. G.	Trinidad, B.W.I.	M Irvine, Miss E. A.	Toronto
V Gray, Miss A. M.	Listowel	V Irwin, Miss I. F.	Toronto
C Griffith, Miss B. M.	Toronto	T Irwin, R. P.	Hamilton
C Griffith, Miss M. I.	Toronto	V Jackson, Miss D. B.	Toronto
T Grout, Miss A. E.	Arnprior	T James, Miss A. L.	Almonte
C Gullette, Miss B. A.	Toronto	C Johnston, C. H.	Toronto
C Gulston, C. S.	Toronto	C Johnston, P.	Toronto
C Haines, Miss F. L.	Wingham	V Johnston, Miss M. W.,	Hamilton
C Haines, J. A.	Toronto	V Jones, Miss V. I.,	Parry Sound
C Halford, Miss K. M.	Toronto	M Kavanagh, Miss A. M.,	Penetanguishene
C Hambly, Miss D. S.	Ottawa	V Keene, J.	Brantford
C Hampson, Miss D.,	St. Catharines	C Keenleyside, Miss H. A.,	Regina, Sask.
V Hanna, Miss J. V.	Toronto	C Keith, W. S.	Toronto
V Hardwick, S. W. M.	Bolton	C Kelly, J. G.,	Charlottetown, P.E.I.
T Harper, S. E.	St. Catharines	C Kelso, M. M.	Toronto
C Harris, Miss C.	Toronto	T Kembar, A. K.	Creemore
C Harris, Miss D. K.	Ottawa	M Killen, J. J.	Lindsay
C Harris, Miss L. A.	Toronto	V Kirby, F. B.	Toronto
V Hart, E. W.	Essex	V Kitching, O. C. H.	Woodstock
C Hastie, W. J. A.,	Sheguianadah	T Klaehn, J. O.	Stratford
C Haywood, K. D.	Toronto	C Klotz, Miss M. E.	Ottawa
T Hazlewood, Miss A. L.,	Bowmanville	C Knowles, Miss M. V.	Sarnia
V Henderson, R. E.	Toronto	V Knox, Miss K. D.	Toronto
T Herbert, R. H.	Preston		

*In attendance Michaelmas Term only.

Name	Home Address	Name	Home Address
M Kramer, Miss H. M. F.,	Guelph	C McKean, Miss V. A.,	Collingwood
C Krieger, Miss C.	Toronto	C McKenzie, L. M.	Guelph
C Laird, A. M.	Norval	M McKeon, F. J.	Hamilton
C Lane, Miss A. M.	Orangeville	T Mackenzie, Miss M. G.,	Toronto
V Langstone, T. W.	Toronto	V MacKinnon, Miss M. G.,	Sillery, P.Q.
C Lash, K. M.	Toronto	C Maclaren, Miss J. D.	Toronto
M Leahy, J. P.	Douro	C McLean, J. L.	Ottawa
V Learn, B. C.	Aylmer	C MacLean, L. A. B.	Bradford
M LeBel, E. C.	Toronto	C MacLennan, Miss H. M.,	Toronto
M Lee, E. G.	Toronto	C McLeod, Miss C. G.	Toronto
C Leigh, G. F.	Chapleau	V McMullen, Miss F. G.	Toronto
V Lennox, A. M.	Shallow Lake	C McMurchie, Miss J.	Clinton
V Lilly, Miss E. M. M.	Toronto	C McNichol, Miss L. D. E.,	Toronto
C Lindsay, Miss M. M. L.,	Renfrew	T MacPherson, Miss M. G.,	Port Stanley
V Little, Miss R. M.,	Proton, Sta.	C MacRae, F. J.	Toronto
V Longworthy, Miss D. L.,	Regina, Sask.	V McRoberts, Miss R. D.,	Port Arthur
C Lowden, Miss J. G.	Toronto	V Maitland, Miss J. A. B.,	Toronto
C Luxton, J. H.	Jessopville	M Mallon, Miss E. M.	Toronto
C McAllister, S.	Toronto	C Mallon, J. G.	Toronto
C McClellan, Miss M. E.,	Bowmanville	V Mannell, R. H.	Woodstock
C McCluskey, Miss M. E.,	Collingwood	C Manson, Miss K. R.,	Edmonton, Alta.
V McColl, D. B.	Regina, Sask.	C Matenko, P.	Toronto
C McConkey, Miss E. S. M.,	Toronto	C Mather, Miss H. C.	Toronto
C McConnell, Miss K. B.,	Toronto	C Matthews, A. S.	Toronto
M McCool, J. A.	Toronto	C Matthew, Miss D. A.,	Georgetown
M McCormack, Miss M. I.,	Battleford, Sask.	V Matthews, N. W.	Rockwood
C McCready, Miss M. L.,	Toronto	C Maybee, G. E.	Port Credit
C McCreary, Miss F. K.,	Wallaceburg	V Metzler, S. J.	Napanee
C McCubbin, Miss C. A.	Chatham	M Miller, Miss C. M. R.,	Niagara Falls, N.Y.
C McCullagh, E. C.	Toronto	C Miller, S.	Toronto
C McCulley, J.	St. Thomas	C Miller, W. R.	Toronto
C McCullough, W. S.	Toronto	C Mills, Miss A. C.,	Wallaceburg
M McDonald, Miss A. E.,	Toronto	T Mitchell, D. R.	Oshawa
C Macdonald, Miss I. M.,	Markham	T Mitchell, Miss R. H.	Lucknow
M MacDonald, T. A.	Toronto	C Mitchell, W. B.	Sarnia
M McDonald, W. F.	Toronto	C Mitchener, E. H.	Toronto
C McDougall, J. E.	Toronto	V Mix, I. W.	Ottawa
C McElroy, Miss E. L. M.,	Ottawa	V Moir, Miss K. V.,	Oxbow, Sask.
C MacFarlane, R. O.	Almonte	V Monkman, Miss O.	Toronto
M McGahey, J. E.	Toronto	V Moody, Miss M. E.,	Winnipeg, Man.
C McGeachy, Miss M. A.	Sarnia	V Moores, H.	Blackhead, Nfld.
C McGregor, Miss H. J.,	Caledonia	V Morgan, L. S.	Toronto
C McIlwraith, A. K.	Toronto	C Morrell, C. A.	Hamilton
C McIntosh, G. A.	Guelph	C Morrison, W. K.	Richwood
C McKay, D. D.	Toronto		
V McKay, Miss H. G.	Toronto		
C MacKay, Miss E. L.	Ingersoll		
C McKay, W. S.	St. Thomas		

Name	Home Address	Name	Home Address
C Mowat, W. H.	Peterborough	V Rowell, W. L.	Toronto
M Mulvihill, Miss J. E.	Arnprior	M Ruth, F. S.	Toronto
M Mulvihill, T. C.	Arnprior	C Rutherford, Miss H. C.	Toronto
V Mundy, Miss L. E.	Toronto	C Ryckman, E. B.	Toronto
C Murphy, Miss M. F.	Lindsay	C Sadowski, Miss E.	Toronto
M Murray, Miss E. M.	Toronto	C Sanderson, A. L.	Wroxeter
C Murray, R. H.	Toronto	C Saunders, Miss A. L.	Ottawa
C Mustard, Miss E. M.	Chatham	C Saylor, W. C.	Trenton
C Mutchmor, H. A.	Markdale	C Schell, Miss E. M.	Stayner
V Noble, T. D.	Toronto	C Schell, Miss G.	Stayner
C Northey, R. V.	Toronto	V Scott, A. W.	Calgary, Alta.
C O'Brian, Miss M. J.	Franklin	V Scott, L. W. W.	Port Hope
M O'Brien, D. C.	Merrickville	C Secord, Miss M. L.	Toronto
M O'Brien, J. T.	Hamilton	M Servais, F. J.	Port Arthur
M O'Neil, Miss K. M.	Brantford	M Sheehy, E. F.	Peterborough
V Panabaker, W. C.	Hespeler	C Sher, D.	Toronto
C Parker, Miss M. D.	Toronto	C Shortill, Miss J. I.	Toronto
V Patterson, Miss M. R.	Orillia	C Shute, E.	Windsor
V Pearson, Miss D. M.	Weston	C Sims, H. des B.	Thistletown
C Pemberton, J. T.	Toronto	V Singleton, Miss M. E. V.,	Toronto
C Penman, W. M.	St. Catharines	V Sissons, Miss M. H.,	Thornhill
C Percy, J. L.	Toronto	C Skelton, Miss J. E.,	Mimico Beach
C Petry, Miss M. A.	Toronto	C Smith, Miss A. M. B.	Toronto
V Philp, C. R.	Colborne	V Smith, D. M.	Campbellcroft
V Philp, R. W.	Arthur	C Smith, Miss E. G.	Toronto
C Phippen, B. C.	Sarnia	T Smith, F. A.	Cataragui
M Pineau, Miss A. C.	Windsor	C Smith, Miss H. A.	Toronto
C Plaxton, H. A. W.	Toronto	V Smith, Miss H. K.	Brantford
C Pockock, L. V.	Brockville	V Smith, Miss H. Marie	Grimsby
T Ponsford, Miss V. I.,	St. Thomas	C Smith, Miss H. Marr.,	St. Thomas
C Pritchard, J. E.	Harrison	C Smith, L. L.	Winona
T Pritchard, Miss M. R.	Ottawa	T Sparling, G. P. M.,	Washington, D.C.
V Pyne, Miss W. M.	Toronto	V Spence, Miss F. M.	Lucknow
C Raikes, Miss E. G.	Barrie	C Spence, Miss M.	Toronto
T Ramsbottom, Miss M. S.	Conn	T Spencer, L. A.	Hamilton
C Reid, Miss B. M.	London	C Stanley, A. A.	Toronto
V Reid, Miss M. M. J.	Toronto	C Steen, Miss E. G.	Ridgetown
V Reinke, F. G.	Ancaster	C Stewart, A. G.	Stouffville
C Relyea, F. B.	Perth	C Stewart, J. A. M.,	Buffalo, N.Y.
V Reynolds, W. R.	Guelph	V Stewart, Miss R. J.,	Tillsonburg
C Rhodes, Miss E. R.	Brockville	V Stone, Miss G. A.	St. Mary's
C Richardes, G. C.	Toronto	V Stone, T. A.	Chatham
C Riddell, Miss H. G.,	St. Catharines	V Stover, Miss J. E.	Chatham
V Ririe, W. B.	Toronto	V Strangways, F. B.	Toronto
V Rivers, S. F.	Goderich	C Struthers, Miss J. F.	Toronto
M Roach, Miss M. G.	Arthur	M Sullivan, Miss M. E.	Hamilton
C Robbins, Miss H. E.	Windsor	C Sumberg, S. L.	Toronto
V Robertson, H.	Chatham	C Sutherland, H. R.	Toronto
C Romm, A.	Toronto	V Sutton, R. E.	Lindsay
C Rose, Miss M. J.	Toronto		
T Ross, D. G.	Toronto		
C Rotenberg, H. D.	Toronto		

Name	Home Address	Name	Home Address
V Sykes, Miss A. L.,	Swift Current, Sask.	C Warren, Miss J. L.,	St. Catharines
C Tait, C. E.	Port Dalhousie	T Washington, C. F.,	Cumming's Bridge
C Tanton, Miss M. L.	London	V Watson, C.	Beeton
C Tate, F. J.	Bluevale	V Watson, Miss M. B.,	Oxbow, Sask.
V Taylor, J. R.	Science Hill	C Watt, Miss I. K.	Toronto
C Taylor, R. C.	Toronto	C Weir, Miss M. A.	Toronto
V Terryberry, Miss L.	Toronto	C Wells, Miss K. B.	Toronto
C Thomas, Miss M. R.	Toronto	M Welsh, E. A.	Peterborough
C Thompson, Miss M. S.	Toronto	C West, Miss G. A.	Toronto
C Thompson, S. M.	Toronto	V Westman, Miss E. M.	Toronto
C Thomson, J.	Dobbinnton	V Weston, W. J. L.	Toronto
C Thomson, R.	Dobbinnton	C Whealy, J. A.	Toronto
V Thornton, C. H.	Woodstock	T Wheeler, T. J.	Toronto
C Torrance, J. C.	Toronto	V White, Miss M. A.	Lindsay
C Torrance, W. C.	Laurel	C Wilkinson, C. R. H.	Toronto
C Tory, J. S. D.	Toronto	M Williams, Miss L. E.,	Niagara Falls
V Toye, Miss G. E.	Toronto	C Willson, D. H.	Ridgetown
V Trask, R.	Alma	C Wilson, D. F.	Toronto
V Trewin, R. F.	Toronto	C Wilson, Miss E. D.	Seaforth
V Troop, W. H.	Ottawa	V Wingfield, Miss M. M.,	Hamilton
C Trumpour, Miss M. G.,	Napanee	C Wong, Y. T.	Canton, China
V Tuck, Miss G. E.	Waterford	C Worthington, Miss E. M.,	Toronto
C Tuer, J. E.	St. Mary's	V Wright, Miss M. M.,	Richmond Hill
M Vahey, T. J.	Toronto	C Wyke, D. A.	Toronto
C Valentine, Miss E. M.,	Toronto	V Wyllie, Miss M. A.,	Kamloops, B.C.
C Vennels, G. W.	Regina, Sask.	C Wynne-Roberts, O. L.	Toronto
C Waldron, K. S.	Hamilton	C Young, D. A.	Toronto
C Walker, Miss E.	Toronto	C Zybach, Miss M. P.,	Niagara Falls
C Walker, R. B.	Exeter North		
C Wallace, Miss G. M.,	Osgoode Station		
C Walls, Miss A. E.	Galt		
V Walton, Miss W. G.,	Parry Sound		

Summary—Second Year

University College	267
Victoria College	125
Trinity College	31
St. Michael's College	46

Total 469

Third Year

T—Trinity College;	M—St. Michael's College;
C—University College;	V—Victoria College.
T Adams, W.	Peterborough
V Addison, Miss L. M.	Toronto
M Agnew, Miss D. L.	Toronto
V Aikins, L. H.	Wallaceburg
V Alexander, Miss E. A.,	Woodstock

Name	Home Address	Name	Home Address
C. Alford, Miss E.	Toronto	C Campbell, Miss H. C. S.	Toronto
C Allen, C. E.	Mount Forest	T Campbell, Miss M.	Thorold
C Anderson, Miss H. E.	Toronto	V Carnahan, Miss R.,	Campbellford
V Anderson, J. C.	Selby	C Carson, Miss E. E.	Toronto
V Armstrong, W. T.	Lucknow	V Cayley, M. A.	Stratford
M Ashbrook, Miss V. C.,	Washington, Pa.	C Chaikoff, J.	Toronto
C Ashworth, C. G.	Toronto	V Chisholm, Miss A. M.,	Toronto
C Austin, Miss A. M.,	Sturgeon Falls	V Chisholm, Miss E. M.,	Toronto
V Bailey, Miss M. G.	Arner	C Clapson, W. J.	Kettleby
C Baker, W. R.	Toronto	V Clare, Miss M. E.,	Little Britain
V Balfour, G. R.	Toronto	C Clark, Miss E. M.	Teeswater
C Ball, Miss K.	Harriston	V Clarke, S. H.	Toronto
T Ballard, Miss A. B.,	Niagara Falls	M Cleary, L. A.	Hastings
C Balmer, H. F.	Toronto	C Clothier, W. J. K.	Ottawa
V Banbury, P.	Wolseley, Sask.	C Clougher, Miss E. J.	Toronto
C Bannister, Miss E. F.,	New Liskeard	T Coate, Miss D.	Chatham
C Bastedo, J. B.	Bracebridge	V Coburn, Miss L. M.	Toronto
V Beaman, Miss M. B.,	Monrovia, Cal.	C Cohen, Miss C. P.	Toronto
C Beatty, G. B.	Toronto	V Coker, Miss W. A. J.	Toronto
V Bell, M. S.	Ingersoll	T Collip, Miss R. E.	Belleville
C Bemrose, Miss J. H.	Toronto	C Colwill, Miss M. B.	Arthur
T Bender, C. A.	Northfield	C Comay, S.	Toronto
V Benson, R. E.,	Barrow-in-Furness, Eng.	V *Conn, L. A.	Thornbury
T Berry, F. B.	Meaford	C Connal, Miss M. E.	Peterboro
C Bergoine, Miss D. I.,	Walkerville	C Coulthard, H. S.	Toronto
C Bird, J. N.	Georgetown	C Cowan, J. A.	Toronto
C Boles, Miss M. H.	Simcoe	V Cox, Miss V. M.	Leamington
C Bond, L. B.	Aurora	V Craig, Miss M. E.,	North Gower
C Bone, R. C.	Toronto	V Crawford, Miss G. M.,	Brampton
C Bone, Miss R. M.	Toronto	V Crawford, H. S.	Sarnia
V Booth, M. W.	Ottawa	V Crosby, Miss K. G.	Weston
V Boyle, Miss B. E.	Toronto	C Cryan, W. C.	Stratford
V Boyle, C. C.	Brampton	C Crysler, A. C.,	St. Catharines
C Braid, J. L.	Windsor	C Currie, C. M.	Smith's Falls
C Brennand, C. G.	Toronto	V Cummings, R. C. R.	Toronto
V Brewer, F. W.	Glanford Sta.	C Curtis, Miss B. S.	Havelock
V Broddy, H. H.	Toronto	M Curtin, L. F.	West Monkton
C Brodey, A.	Toronto	C Cushine, J.	Mount Forest
C Brooks, Miss B. I.	Rockwood	C Dalton, E. W.	Walsingham
V Burns, A. G.	Toronto	V Daly, R. M.	London
T Burns, Miss M. A.	Oshawa	C Dandy, J. P.	Toronto
T Burpee, Miss R. M.	Ottawa	C David, Miss W. M.	Toronto
V Burwash, Miss C. F.,	Lachute, Que.	V Davidge, P. I.	Weston
V Caldwell, Miss M. A.,	Currie's Crossing	C Davidson, Miss M. E. G.,	Mimico Beach
C Cameron, Miss J.	St. Thomas	C Davidson, S. W.	Toronto
		M Dawson, Miss E. M.	Toronto
		C Day, D. J.	Toronto
		V Day, G. S.	Toronto
		T Day, J. F.	Toronto
		C Dean, Miss H. M.	Toronto
		C Deeton, W. L.	Toronto

*In attendance Michaelmas Term only.

Name	Home Address	Name	Home Address
V Delahay, Miss H. F.	Ottawa	C Hanlan, J. D.	Toronto
V Delahay, N. A.	Ottawa	C Hanna, F. J.	Ottawa
M Deloughery, F. J.	Pembroke	M Hannan, Miss A. A.	Toronto
T Dewdney, D. R.	Toronto	V Harley, Miss M. E. E.,	Burford
C Dinsmore, Miss R. F.,	St. Mary's	V Harris, Miss J. H.	Madoc
C Doidge, W. G.	Toronto	T Harshaw, E. B.	Ottawa
C Donaldson, J. S. R.,	Grand Forks, B.C.	V Hastings, Miss M. D.	Aurora
C Doole, Miss A. I.	Toronto	V Haver, M. J.	Luella, Sask.
V Doxsee, J. E. R.	Regina, Sask.	V Hazlewood, H. E.	Clifford
M Ducharme, Miss E.	Stratford	V Henry, W. C.	Markdale
V Dunbar, Miss A.	Newington	C Hetherington, Miss H. E.,	Toronto
M *Dwyer, F. A.	Toronto	C Hewitt, G. W.	Toronto
C Efrein, S.	Toronto	V Hilborn, H. W.	Blair
V Elgie, Miss A.,	Sault Ste. Marie	C Hilliard, W. L.	Waterloo
C Elliot, Miss O. E.	Toronto	V Hiltz, W. L.	Toronto
V Emberson, Miss D. M.	Weston	V Hinchey, R. R.	Shannonville
V Endicott, J. G.	Toronto	V Hogarth, Miss M. V.,	Hamilton
V Evans, E. S.	Clinton	C Holmes, S. D.	Picton
C Farrar, Miss P. I.	Cornwall	T Hope, Miss H. J.	Toronto
C Ferguson, D. H.	St. Thomas	C Hough, H. B. T.,	Amherstburg
C Ferguson, R. I.	Toronto	V Howard, Miss A. E.	Toronto
C Findlay, D. K.	Carleton Place	V Howey, H. J. S.	Owen Sound
C Fingland, F.	Londesboro	M Hughes, Miss A.	Toronto
C Fisher, Miss K. G.	Toronto	V Hughes, Miss K. H.,	Moose Jaw, Sask.
V Flavalle, W. G.	Lindsay	C Hurwich, S. B.	Toronto
C Foster, Miss E. W.	Toronto	C Ingram, Miss H.,	Moose Jaw, Sask.
C Fraser, G. A.	Niagara Falls	V Ireland, J. A.	Toronto
C Fraser, Miss M. B.	Toronto	M Irvine, Miss S. M.	Toronto
C Fry, Miss A. C.	Dunnville	C Irwin, Miss M. O.	Wingham
C Furniss, Miss P. H. B.,	Brechin	V Jackson, Miss C. M.	Whitby
M Gendron, W. H.	Penetang	C Jackson, Miss E. M. O.,	Toronto
M Gibbons, Miss L. M.	Toronto	T Jameson, A. E.	St. Mary's
M Gibbs, Miss M. V.	Toronto	V Jeffs, Miss K. L.	Toronto
C †Gibson, J.,	Rosebud Creek, Alta	C Jephcott, Miss A. B.	Toronto
C Gillies, A.	Cedarville	C Jephcott, C. M.	Toronto
C Gogo, Miss M. O.	Cornwall	C Jolly, J. E.	Hamilton
C Gold, Miss S. M.	Toronto	T Jones, J. R.	Brighton
C Gordon, R. G.	Pembroke	C Keeler, J. W.	Toronto
C Graham, G. M.	Victoria, B.C.	V Keffer, F. R.	Hespeler
C Graham, J. L. L.	Toronto	V Kell, J. A. C.	Cookstown
C Grant, Miss C. W.	Toronto	V Kelly, G. C.	Hamilton
C Grant, E. W.	Belleville	M Kelly, Miss M. A.	Renfrew
V Grant, Miss F. R.,	Victoria, B.C.	V Kendrick, Miss R. V. H.,	Toronto
M Gravelle, Miss E.	Toronto	C Kennedy, Miss E. J.	Toronto
V Greene, Miss F. B.	Toronto	C Kennedy, Miss K. O.,	Stratford
T Grew, R. H. L.	Ottawa	C Kennedy, Miss S. K.	Toronto
C Guthrie, D. P.	Guelph	M Kennedy, V.	Toronto
C *Haines, Miss D. F.	Thornhill	V Kerr, J. W.	Hamilton
C Halliday, C. P.	Toronto	C Kerr-Lawson, D. E.	Toronto
V Hambly, G. H.,	Swan Lake, Man		
V Hamer, Miss M. L.	Aurora		
V Hamilton, J. R.	Waterdown		

*In attendance Michaelmas Term only.

†Dispensation for the Session.

Name	Home Address	Name	Home Address
T Ketchum, J. D.	Toronto	V MacGillivray, Miss E. B.,	Shanghai, China
T Ketchum, P. A. C.	Toronto	C McGirr, E. J.	Durham
C Kidd, Miss M., Burritt's Rapids		T M'Gonigle, R. H.	Newmarket
C Kilbourn, Miss R. M.	Toronto	V McGregor, Miss H. D.,	Waterdown
C Kirkwood, K. P.	Toronto	C McInnis, E. W.,	Charlottetown, P.E.I.
C Kiteley, Miss M. E.	Bradford	M McIntyre, J. V.	Brantford
C Krug, C. W.	Chesley	C McKague, A. E.	Teeswater
C Krug, Miss F.	Chesley	C McKay, H. H.	Goderich
M Lanphier, C. B.	Toronto	C MacKay, L. A.	Hensall
C Larkin, Miss M. H.	Seaforth	C McKeown, J. J. F.	Toronto
C Larkin, S.	Toronto	C McKim, Miss E. I., St. John, N.B.	
M Latchford, Miss L. M.	Toronto	C MacLaren, D. F.	Barrie
C Lauder, Miss M. F.	Toronto	C McLaren, Miss E.,	St. Catharines
C Laurie, J. L., Evergreen, Alta.		C McLaurin, A. C.	Toronto
V Lavelle, Miss N.	Toronto	C Maclean, Miss G. V.	Napanee
C Lavine, Miss T. D.	Toronto	C MacLellan, Miss M. E.,	Claremont
C Lee, L. C.	Toronto	C MacLennan, H. A.	Hamilton.
T Lee, W. E. M.	Goderich	T MacMillan, A. W.,	Niagara-on-the-Lake
M Legris, Miss D. M.	Renfrew	C McMurchie, Miss M.	Clinton
C Leitch, Miss M. M., Port Arthur		C McNab, C. M.	Walkerton
M Lenahan, N.	Toronto	C MacNamara, Miss B. L.,	Toronto
C Lennox, H.	Markdale	C McNeely, Miss C., Carleton Pl.	
V Leonard, A. K.	Clinton	C McNish, Miss J.	Toronto
C Levy, H. H.	Hamilton	C Macpherson, Miss J. H. K.,	Toronto
C Lightbourn, G. O.	Toronto	C Mahon, Miss M. H.	Toronto
V Lindsay, J. H.	Aylmer West	M Mallon, Miss M. F.	Toronto
V Lister, Miss C. I.	Beamsville	V Marr, E. C.	Toronto
V Long, E. E.	Woodstock	C Marr, R. B.	Dorchester
V Luckey, L. E. R.	Toronto	V Marston, Miss M. D.	Toronto
C Lutman, Miss M. E.	London	M Masales, R.	Woodstock
T Luxton, G. N.	Mount Forest	V Mathers, S. J.	Palmerston
M Lynch, P. J.	Peterborough	C Meredith, E. R.	Peterborough
V Lyons, Miss B. E.	Newmarket	T Messervy, Miss E.,	Charlottetown, P.E.I.
C Lyons, L. S.	Weston	V Metzler, Miss G. E.	Napanee
C MacAlpine, N. A.	Toronto	C Meyer, Mrs. M. J.,	East Orange, NY.
C McCandless, J. C.	Brampton	V Millar, Miss D. E.	Thorold
C McClenahan, Miss O. I.,	Milton West	C Millar, D. L., Sault Ste. Marie	
C McCool, B. S.	Walkerton	V Minore, Miss A. J.	Norwood
C McDerment, R.	Milton	C Mitchell, Miss P. E.	Toronto
C MacDonald, C. C.	Muirkirk	C Mitchell, R. S.	St. Mary's
C McDonald, P. W.	Colborne	C Mitchell, W. H., Honan, China	
M MacDonnell, Miss M. H. I.,	Toronto	V Morgan, Miss P. L.	Lindsay
C MacDonnell, Miss M. P.	Toronto	M Morrow, J. E.	Colgan
C MacDougall, Miss J. V.,	Toronto	C Moyes, Miss M. C.	Toronto
C McFadden, A. P.,	Sault Ste. Marie		
C MacFarlane, Miss J. C.,	Lake Saskatoon; Alta.		
M McGee, W. P.	Toronto		
T McGillivray, D. J.	Whitby		

†Dispensation for this Session.

Name	Home Address	Name	Home Address
C Mueller, Miss F. H.	Waterloo	C Rutherford, Miss K. M.,	Owen Sound
C Muir, Miss E. J.	Cornwall	M Ryan, Miss M. A.	Toronto
C Muir, Miss S. L.	Toronto	C Sauerbrei, C.	Kenora
M Mulligan, M. J.	Toronto	C Shatz, M. H.	Toronto
M Mulville, E. E.	Westport	C Scott, Miss E. L.	Clifford
C Naylor, Miss E. M.	Toronto	C Scott, R. B. Y.	Toronto
V Nelson, J. F.	Orillia	V Shannon, Miss D. E.,	Sault Ste. Marie
V Nephew, Miss E. G.	Finch	V Shaver, C. B.	Ottawa
C Nieghorn, Miss A.,		V Shelton, B. M.	Peterborough
	Montreal, Que.	C Sheppard, Miss E. M.	Toronto
C Nodwell, W. E.	Hillsburg	V Sheridan, Miss D. G.,	Brockville
V Odell, Miss J. M. D.	Cobourg	C Shipley, M. A.	Clinton
V Oke, C. C.	Toronto	C Sidey, W. J. K.	Harwood
C O'Reilly, C.	Toronto	C Sinclair, Miss J. H.	Toronto
C Orr, M. D.	Toronto	T Sloggett, Miss L. H.,	Warkworth
M O'Toole, A. L.	Peterborough	V Smale, A. J.	Highgate
M Page, A. N.	Windsor	C Smith, H. A.	Hamilton
C Park, B. E.	Peterborough	V Smith, L. V.	Brantford
C *Parker, Miss D. A.	Toronto	C Smith, M. D.	Unionville
V Partridge, B. O.	Barrie	V Smith, Miss M. S.	Sandford
V Patterson, W. R.	Toronto	V Smith, W. E. L.	Toronto
C Payne, Miss W. M.	Toronto	V Snider, Miss H. W.	St. Jacobs
C Peaker, Miss I.	Toronto	C Sparks, H. M. I.	Toronto
V Perkins, I. G.	Owen Sound	C Sparling, E. M.	Goring
V Perry, Miss E. K.	Toronto	C Stacey, Miss D. E.	Toronto
C Petrie, Miss P. A.	Clarkson	C Stanton, O. L.	Toronto
T Philip, J. A.	Galt	V Staples, Miss K. M.	Orono
C Phillips, Miss L. I.	Toronto	C Stark, Miss E. M.	Chatham
M Pickett, Miss M. M., Mt. Forest		C Stark, Miss L. J.	Chatham
T Pickford, Miss M. A., Brighton		V Start, R. G.	Currie's
V Pook, Miss E.	St. Mary's	C Steele, Miss M. I.	Tavistock
T Preston, A. V.	Orangeville	C Stewart, A. R.	Toronto
C Quirie, Miss V. J.	Weston	V Stone, A. R.	Highgate
C Reburn, E. G.	Toronto	C Strachan, I. T.	Toronto
C Rice, Miss M. R.	Welland	M Sullivan, L. D. J.	Hamilton
C Robertson, D. G.	Hamilton	C Sutherland, J. L.	Brantford
C Robertson, Miss P. A.	Barrie	C Swanson, Miss M. K.,	Kamloops, B.C.
C Robertson, S. G.	Belleville		
C Robertson, C. W. T.	Toronto	C Sweitzer, C. W.	Kitchener
C Robinson, Miss F. M.,		C Taylor, E. I.	Toronto
	Walkerville	C Taylor, Miss G. M. P.,	Stratford
C Robinson, R. H.	Fergus	C Taylor, J. W.	Guelph
T Roderick, J. H.	Stoney Creek	V Taylor, Miss M. V. L.,	St. Catharines
C Rogers, H. M.	St. Catharines		
C Rotenberg, H.	Toronto	C Taylor, N. W.	Toronto
C Rothwell, T. J. H.	Lanark	C Taylor, Miss V. A.	Toronto
V Rowe, C. L.	Regina, Sask.	C Taylor, W. E.	Pefferlaw
C Ruddy, R. K.	Brantford	C Telford, Miss M. E.,	Owen Sound
M Rush, E. L.	Toronto	C Thomas, H. F. S.	Toronto
V Russell, Miss F. L.	Toronto		

*In attendance Michaelmas Term only.

†Dispensatoin for the Session.

Name	Home Address	Name	Home Address
V Thompson, A. L.	Hamilton	C Wasson, E. L.,	Young's Cove, N.B.
M Toole, W. B.	Toronto	T Weaver, E. L.	Hespeler
V Toye, Miss D. E.	Toronto	C Webber, R. P.	Paris
V Trethewey, W. H.	Woodville	C Weber, C. R.	Windsor
C Tuck, G. I.	Hespeler	V Webster, W. L.,	Shediac, N.B.
C Tucker, Miss V. J.	Toronto	C Weir, Miss E. M.	Paris
C Tudhope, B.	Orillia	C Wellwood, Miss I. L.	Toronto
C Turner, Miss J. F., Nelson, B.C.		V Whaley, D. W.	Toronto
C Ulrich, Miss A. G.,	Springfield, Ill.	C Wharton, T.	Cayuga
M Vale, P.	Toronto	C Wheadon, Miss M.	Toronto
V Van Alstyne, Miss H. G.,	Napanee	C Whitaker, F. C.	Brantford
V VanLuven, Miss D. M. D.,	Hamilton	C White, Miss I. G.,	Moose Jaw, Sask.
C Waldman, H. J.	Toronto	V Whittington, Miss E. R.,	Toronto
C Waldron, L. F.	Hamilton	T Wilkes, Miss M. E.	Toronto
C Wales, H. G.	Markham	C Wilkins, S.	Toronto
C Walmsley, Miss M. H.,	Toronto	C Wilkinson, F. H.	Toronto
V Walwyn, A. G.	Weston	C Williamson, Miss W.,	Beaverton
C Walton, Miss E.	Toronto	C Wilson, J. L.	Kamloops, B.C.
V Walton, Miss M. B.,	Parry Sound	C Wilson, Miss L. A.	Midland
W Ward, F. G.	Foster	C Winnett, F. V.	Oil Springs
C Warne, W. H.	Oshawa	M Wood, Miss C.	Toronto
		C Wright, Miss T.	Toronto

Summary—Third Year

University College	239
Victoria College	123
Trinity College	31
St. Michael's College	39
Total	432

Fourth Year

T—Trinity College;	M—St. Michael's College;
C—University College;	V—Victoria College.
T Abbott, H. J. E.,	V Avery, C. L.
Bound Brook, N.J.	Toronto
C Adams, Miss A. M.,	C Baker, W. A.,
Peterboro'	Moose Jaw, Sask.
C Alexander, W. A.	M Bart, P. J.
Toronto	Toronto
V Allan, P. C.	C Bell, Miss G.,
Toronto	Indian Head, Sask.
C Allan, Miss P. M.	V Bell, H. J.
Picton	Peterborough
V Allen, Miss L. M.,	V Bennett, Miss K. E.,
Calgary, Alta.	Yorkton, Sask.
C Allen, S.	V Binkley, G. A.
Toronto	Dundas
V Allin, S. J.	C Bird, Miss G. R.
Toronto	Barrie
C Anderson, C. M.,	C Bredin, W.
Wilton Grove	Toronto
C Armstrong, J. C.	C Brierly, Miss E. G.,
Ottawa	Detroit, Mich.
V Armstrong, Miss S. G.,	C Broadbridge, Miss R. P.,
Markdale	Toronto
C Arthur, Miss D. L.	
Sudbury	

Name	Home Address	Name	Home Address
C Brown, Miss A. M. H., Toronto		C Fletcher, C. L.	Melbourne
V Brown, G. G.	Toronto	C Flynn, M. J.	Hamilton
M Brown, H. M.	Hamilton	M Ford, J. A.	Hamilton
V Brown, L. W.	Crediton	C Forster, F. C.	Toronto
C Brubacher, C. S.	Kitchener	C Foster, J. W.	Toronto
V Burrows, Miss K. F.	Seaforth	C Fraser, Miss F.	York Mills
T Burwash, Miss F. M., Arnprior		C Fried, Miss M. H.	Toronto
C Campbell, W. S.	Cheltenham	V Gallaway, Miss E.,	
C Carswell, Miss H. M.	Toronto		Estevan, Sask.
C Cave, Miss V. B.,		C Gault, T. S.	Deseronto
	Hastings, Barbados	C Gavin, Miss D. G.	Toronto
V Chant, S. F.	St. Thomas	V Gay, A. G.	Belleville
V Chantler, W. E.	Toronto	C Geddes, H. H.	Strathroy
V Christie, K. A.	Winchester	T Gee, A. H.	Hamilton
C Clarke, Miss M. E., Palmerston		C Gee, R. J.	Selkirk
V Cline, C. W.	Hannon	C Gemmill, C. D.	Toronto
C Cochrane, Miss H. M.	Toronto	V Gibson, D. F.	Tillsonburg
M Collins, Miss W. C.,		M Gibson, Miss N. J.,	
	St. Catharines		Chicopee, Mass.
C Cordingly, Miss K. D., Toronto		V Gilroy, A. E. T., Mount Forest	
V Couch, J. H.	Strathroy	C Glazebrook, G. P. de T., Toronto	
M Coughlin, Miss C. E., Toronto		T Gladman, Miss E. G., Peterboro	
C Cray, Miss M. B.	Guelph	C Glover, C.	Hessle, Eng.
C Curry, A. G.	Windsor, N.S.	V Goodwyn, Miss H. F.	Arnprior
C Curtis, C. A.	Smith's Falls	C Gordon, A. R.	Toronto
V Daly, Miss F. D.	London	C Gordon, J. A. H.,	
V Daly, Miss K. B.	Napanee		New Westminster, B.C.
C Darker, G. D.	Streetsville	C Gordon, Miss M. F.,	
V Dewey, H. W.	St. Mary's		Niagara Falls
C Dickie, W. C., Edmonton, Alta.		V Goulding, Miss M. L.	Toronto
M Dobell, R. J.	Toronto	C Gray, Miss I. M.	Toronto
C Doran, Miss E. M.	Iroquois	C Gray, Miss N. E.	Coldwater
C Doran, Miss M. V.	Iroquois	C Griffiths, Miss G. M.	Fonthill
M Dore, J. W.	Hamilton	V Grudeff, J.	Toronto
C Dow, Miss L. M.	Toronto	V Guillet, E. C.	Cobourg
M Doyle, Miss E. S.	Toronto	M Guinane, Miss H. M.	Toronto
V Drew, Miss K.,		C Halliday, Miss F. F.	Toronto
	New Westminster, B.C.	C Hamilton, F. C.	Toronto
M Dunbar, J.	Priceville	V Hanna, Miss M. I.	Toronto
T Dwelly, R. T. C.	Toronto	M Hannan, Miss M. A.	Toronto
C Elliot, B. V.	Norwich	C Harkness, W. J. K.,	
V Everson, Miss M. A.	Oshawa		Vineland Station
C Ewart, Miss A.	Toronto	V Harries, I. C.	Toronto
C Fair, G. L.	Toronto	C Harris, Miss L. A.	Hamilton
C Fair, Miss M. E.	Collingwood	V Hassard, Miss G. G.	Toronto
V Fallis, Miss F. A.	Toronto	C Hele, Miss S. E.	Mimico
V Ferguson, E.	Sarnia	M Henry, Miss M. A., New Toronto	
T Ferguson, Miss J. E.,		C Hjkson, Miss B. N.	Toronto
	Port Stanley	C Hill, D. C.	Ottawa
C Ferriss, A. M.	Windsor	V Hobbs, Miss J. E.	Thorndale
C Fink, H. J. V., Cranbrook, B.C.		C Hodgins, Miss D. C.	Stratford
V Fisher, D. B.	Toronto	C Home, Miss R. M.	Welland
C Fisher, F. W.	Toronto	C Hoover, G. I.	Weston
V Fitzpatrick, Miss B. M., London		V Horwood, E. C.	Toronto

Name	Home Address	Name	Home Address
V Howitt, Miss M.	Waterloo	C McQueen, Miss J. C. . .	Toronto
V Hubbell, Miss R. A.,	Smith's Falls	V Maines, W. J.	Blyth
C Hume, Miss A. K. . .	Toronto	C Maitland, Miss M. . . .	Elora
C Hutchison, F. L.	Mitchell	M Malone, B. P.	Toronto
C Inwood, Miss J. S. . .	Toronto	C Martin, J. B. . . .	Victoria, B.C.
V Irvine, L. C.	St. Mary's	C Martyn, M. L. . . .	Ripley
T Izzard, Miss E. W.,	Woodstock	C Matchett, H. B. . . .	Toronto
C Jamieson, Miss M. J. .	Oshawa	C Maxwell, W. D. . . .	Pembroke
C Jaspersen, F. K. . . .	Kingsville	C Maybee, Miss A. L.,	Port Credit
C Johnston, H. W. . . .	Toronto	V Menzies, A. E. A. . .	Sarnia
C Johnston, M. C. . . .	Toronto	C Millar, Miss K. M. . . .	Toronto
C Jones, C. O.	Toronto	V Milliken, Miss R. M.,	Saskatoon, Sask.
C Kastner, Miss F. C. . .	Stratford	T Moore, A. B.	Toronto
C Kearney, Miss M. B. . .	Toronto	C Moran, Miss M. A. . . .	Toronto
C Keens, Miss C. H. . .	Toronto	M Morrissey, J. B. . . .	Toronto
C Kitchen, C. E. . . .	Toronto	C Morrison, Miss H. K.,	Edmonton, Alta.
C Langworthy, Miss E. M.,	Port Arthur	T Morse, Miss M. S. . . .	Toronto
M Lee, Miss K. K. . . .	Toronto	C Morson, Miss H. W.	Toronto
C Lewis, Miss G. V. . . .	Toronto	C Muir, W. S.	Niagara Falls
C Littlefield, C. G. . . .	Toronto	M Mullett, Miss A. K.,	Carleton Pl.
M Longeway, Miss T. M.,	Stratford	C Mustard, J. T. . . .	Toronto
C Lowther, A. A. . . .	Toronto	T Nation, J. S. D.	Toronto
V Luck, J. M. . . .	Brantford	C Needler, Miss M. C.	Toronto
T Luxton, W. G. . . .	Mount Forest	V Nourse, R. E. . . .	Downsview
V McAndrew, H. O. . . .	Hamilton	V Oaks, Miss M. . . .	Preston
M McBrady, Miss L. . . .	Toronto	M O'Donnell, A. . . .	Merrickville
M McCardie, Miss M. M.,	Linwood	M O'Donnell, Miss M. A. .	Toronto
V McClenaghan, Miss J. V.,	Ottawa	M O'Donohue, F. E. . . .	Brantford
C McCormick, N. A. . . .	Walkerville	M O'Leary, Miss K. G.,	Park Hill
C McCullough, Miss J. J.,	Harriston	M O'Shea, M. A. . . .	Norwood
M McDermott, F. T. . . .	Toronto	V Pakenham, F. R. . . .	Norwood
C Macdonald, Miss A. H. G.,	Toronto	C Paterson, Miss I. L. . .	Ingersoll
MacDougall, R. A. . . .	Sarnia	V Patterson, Miss E. F.,	Niagara Falls
T M'Gonigle, Miss E. M.,	Newmarket	C Pearl, Miss M. J.,	St. Johns, Mich.
M McGrath, Miss E.,	St. John, Nfld.	C Pidgeon, Miss M. A. . .	Toronto
C MacIntyre, A. L. . . .	Toronto	T Pittman, Miss B.,	Topsail, Nfld.
C Mackenzie, A. A. . . .	Guelph	V Potter, H. F. . . .	Clinton
C McKeown, Miss H. . . .	Belleville	T Potts, Miss G. H. . . .	Lindsay
M Mackintosh, Miss E. N.,	Toronto	C Pratt, Miss F. P. . . .	Toronto
C McKnight, Miss M. B.,	Simcoe	V Prentice, G. T.	Duntroon
C MacLean, Miss H. M. . .	Toronto	C Prentice, J. L. . . .	Toronto
C McLean, Miss M. . . .	Priceville	C Purcell, G. M.	Guelph
C MacLennan, F. A.,	Gould, Que.	C Raney, Miss G. C. . . .	Renfrew
M McMahon, E. J. . . .	Delhi	V Ray, Miss M. V. . . .	Woodville
C MacMillan, Miss J. R.,	Toronto	V Rehder, Miss A. K. . . .	Paris
C MacNamara, W. G. . . .	Toronto	C Reid, Miss M. E. . . .	London
V McNeely, J. V. . . .	Norwood	C Reoch, A. . . .	Nottawa
		C Reoch, Miss A. . . .	Nottawa
		C Rhodes, Miss M. E. . .	Brockville

Name	Home Address	Name	Home Address
C Rickaby, H. C.	Orono	C Swan, W. J. M.	Toronto
C Rosebrugh, Miss M. . . .	Toronto	C Tait, R. G.	Port Sydney
C Rosenthal, H.	Toronto	C Taylor, A. C.	Indore, India
C Ross, J. L.	Erindale	C Taylor, Miss A. L.,	Edmonton, Alta.
C Roulston, W. A.	Toronto	V Taylor, Miss J. A.,	Owen Sound
C Ryrie, R.	Toronto	C Taylor, Miss N. C. . . .	Toronto
C Saunders, H. E.,	Fort William	C Telfer, Miss M. L.,	Collingwood
V Sayles, F. A.	Brantford	C Terryberry, W. W. . . .	Dundas
C Schorman, Miss K. S. . . .	Toronto	C Thomson, W. G.	Toronto
C Scott, R. H.	Alliston	C Trick, H. W.	Oshawa
C Scott, W. J.	Owen Sound	M Tuffy, Miss C.	Toronto
C Shaw, Miss E. A. J. . . .	London	C Twitchell, Miss M. C. . .	Toronto
C Sher, A.	Toronto	V Uren, Miss A. M.	Mitchell
C Sherrin, Miss M. H. M.,	Toronto	C Valentine, Miss C. F.,	Waterloo
C Shoebotham, Miss B. M.,	Woodstock	V Van Allen, Miss B. G.,	Morrisburg
M Simpson, Miss A. C.,	Port McNicol	V Vipond, F. E.	Hamilton
M Simpson, F. R.	Port McNicol	V Wallis, Miss G. E. . . .	Clinton
C Sinclair, Miss H. I. . . .	Toronto	C Weissgerber, L. A.,	Laurane, Mont.
C Smillie, J. M.	Toronto	C Wells, D. C.	Toronto
C Smith, Miss A. J.	Chatham	C West, Miss L. B.	Toronto
C Solway, J. B.	Toronto	C Wheaton, H. B.	Toronto
C Spaidal, Miss M.	Toronto	T White, J. R.	Ottawa
C Sparrow, W. H.	Toronto	V Williams, Miss F. V. . . .	Athens
C Stagg, Miss E. J.	Brockville	T Wilson, H. A.	Toronto
C Stanley, Miss G.	Toronto	C Wilson, Miss J. A.	Toronto
T Stanley, S. W.	Guelph	V Wilson, Miss M. M. . . .	Toronto
C Steele, T. M.	Stratford	V Wilson, R. L.	Delhi
C Stewart, R. A.	Brussels	C Wilson, W. G.	Midland
V Stewart, R. de la P.,	Buffalo, N.Y.	C Wood, Miss D. M.	Brantford
C Stewart, S. R.	Toronto	C Wood, J. D.	Toronto
C Stilwell, W. A.	Toronto	C Wood, R.	Listowel
M Stock, L. J.	Mimico Beach	C Woodland, F. A. L. . . .	Toronto
T Stowe, H. J.	Toronto	V Wright, Miss A. M. . . .	Toronto
V Strangway, W. E.	Petrolea	C Wright, Miss M. C.,	Willowdale
C Stuart, Miss M. M.	Guelph	V Wright, W. J. A.	Dundalk
C Stuart, Miss R. G.	Mitchell		

Summary—Fourth Year

University College	168
Victoria College	70
Trinity College	18
St. Michael's College	33

Total 289

Occasional Students

U Adsett, Miss H.	Guelph	C Atkinson, J.	Mono Mills
V Aiken, M. J.	Norval	C Azuma, B. N.	Japan
T Ambrose, A. L.	Hamilton		

Name	Home Address	Name	Home Address
U Baker, C. C.	Ottawa	M Fraser, G. E. M.	Ottawa
C Barron, Miss A.	Brantford	V Freake, D. E.	Toronto
U Bates, Miss D. M.	Toronto	V Gardiner, F. J.	Regina, Sask.
C Bell, J. E.	Priceville	U Garrett, Mrs. H. R.	Toronto
C Bennett, G.	Kincardine	C Gibson, H. J.	Newcastle
T Benore, Miss M. L.,		C Gillelan, H. M.	Milton
	Campbellford	C †Golding, Mrs. A. J.	Toronto
C Bentum, A. V.	Wilton Grove	C Gray, B. G.	Toronto
M Black, H. A.	Peterboro	C †Harper, Miss P.	Waterloo
M Blanchard, H. L.	Toronto	C Hay, Miss M. I.	Toronto
U Bouner, G. W.	Chicago	C †Home, Miss H. B.	Toronto
V Brailey, F. W. L.	Copetown	V Humphries, T. F.,	
C Breadner, Miss H. F.	Toronto		Lambton Mills
V Brett, A. F.	Springdale, Nfld.	V Hutcheson, Miss M. M.,	Toronto
V Bunt, F. A.	Collingwood	V Hyde, J. S.	Orton
V Burbidge, W. A.,		U Ibbott, J. T.	Arthur
	Le Canard, N.S.	C Irvine, Miss E. A.	Toronto
C Burke, J. V.	Toronto	U Ishizuka, T.,	
V Butt, W. S.	Western Bay, Nfld.		Ranagawaken, Japan
U *Butterfield, J. E. C.	Toronto	U Jackman, H. R.	Toronto
U Calvert, G. R.	Kingston	C Jacques, E.	Toronto
V Campbell, G. W. W. A.,	Maple	U Johnson, J. P.	London, Eng.
U Carr, Miss M. M.	Toronto	C Johnston, Miss D. M.	Toronto
M Carty, W.	Elgin	V Kaine, I. P.	Cottam
C Chamberlain, Miss M. L.,		C Kennedy, V.	Toronto
	Toronto	V Kerr, Miss D. M.	Toronto
C Chesters, Miss M. H.,	Brampton	M Killen, J. Q.	Peterborough
C Chisholm, Miss R. E.	Oakville	V Kimura, S.	Shigaken, Japan
C Clift-Read, H.	Hamilton	V Knox, W. J. S.	Brucefield
T Coate, Miss P.	Chatham	C Lamb, C. W. J.	St. Catharines
C Cohen, Miss M.	Toronto	C Larochelle, Miss B. V.	Ottawa
M Corkery, V. J.	Peterboro	U Lasby, Miss O. M.	Toronto
C Cowan, D. E.	Yorkton, Sask.	M Lassaline, H. J.	Windsor
U Cross, W. B.	Toronto	C Lawson, J. S.	Guelph
V Cummings, R. C. R.	Toronto	C LeBel, E. C.	Toronto
M Day, T. J.	Toronto	C Lee, E. G.	Toronto
U DePencier, J. C.,		U Lloyd, Miss L. E. V.	Toronto
	Vancouver, B.C.	V Lundy, W. C.	Toronto
M Dwyer, F. A.	Toronto	MMcCarney, W. C.	Peterboro
V Edgcombe, S., Ochre Pt Cove,		C McCallum, A. C.	Toronto
	Nfld.	U McDowell, Miss K.	Toronto
V Elliott, Miss N. E., Hong Kong,		M *McEmaney, V.	Toronto
	China	C McGrath, Miss E.,	
C Enright, C. T.	Toronto		St. John's, Nfld.
V Evans, Miss H. P.	Sudbury	U McKim, Miss M. L.,	
T Ewart, Miss M. B.	Ottawa		Amherst, N.S.
U Fasken, S. A.	Toronto	C McLaren, A. K.	Toronto
U Fawcett, Miss M. J.	Toronto	C McLaren, Miss M. M.	Toronto
V Ferguson, G. F.	Toronto	C McNaught, J. C. K.	Toronto
C Filer, W. A.	Hamilton	C McQueen, D.	Stayner
M Fitzgerald, R. W.	Peterboro	C McQuillan, Miss-M. I.	Toronto
C Forner, B. N.	Toronto	C Malkin, Miss B.	Toronto
U Foster, C. W.	Moir	C Mallon, Miss M. F.	Toronto

*In attendance Michaelmas Term only.

†In attendance Easter Term Only.

Name	Home Address	Name	Home Address
V Martin, H. W.,	Trinity Bay, Nfld.	T Sawyer, P. A.	Guelph
C Meen, H.	Toronto	C Scovell, G. S.	Toronto
V Miller, C. C.	Bath	C Servais, F. J.	Port Arthur
V Mooney, Miss M. M.,	Grand Coulee, Sask.	C Sharpe, G. V.	Toronto
V Moores, W. J.	Red Bay, Lab.	C Sheahan, Miss R. M.,	St. Catharines
C Morrissey, J. B.	Toronto	V Shortt, J. E. R.	Toronto
C Mullett, Miss A. K.,	Carleton Pl.	M Simpson, D. D.	Hamilton
M Mulligan, J. A.	Sudbury	T Smedley, J. S.,	Richard's Land'g.
C Mulvihill, Miss J. E.	Arnprior	C Smith, Miss D. E.	Toronto
C Murtha, T. J.	Toronto	C Smith, Miss J. M.	Toronto
U Noyes, Mrs. M. S.	Toronto	U Smith, L. H.	Ottawa
C O'Boyle, B. J.	Dundas	C Snyder, Miss H. G.	Waterloo
C O'Neill, M. C.	Ottawa	V Stropp, H. W.	Cape Croker
V Qshima, R.	Tokyo, Japan	C Sutton, H. F.	Toronto
C Osler, Miss P. A.	Toronto	C Taylor, Miss A. M. A.,	Lorne Pk.
V Pardy, B. P.,	Twillingate, Nfld.	T Taylor, Mrs. K.	Toronto
C Paterson, J. D.	Toronto	T Taylor, Miss M. I.	Toronto
C Pickering, A.	Stafford, Eng.	C Toole, W. B.	Toronto
C Pointon, Miss M. T.	Toronto	V Trueblood, A. S.	Trafalgar
U Price, F. P.	Toronto	C Tuffy, Miss C.	Toronto
C Price, S.	Staffordshire, Eng.	U Turner, Mrs. A. P.,	Lansing, Mich.
C Primrose, Miss O. C.	Toronto	C Unsworth, J.	Brantford
C Quinlan, H. F.	Trout Creek	C Vahey, T. J.	Toronto
C Ray, Miss M. D.	Toronto	V Wait, A. D.,	Qu'Appelle, Sask.
C Riddell, J.	Chatham	C Watts, Miss G.	Toronto
V Riddolls, E. G.	Listowel	V Weber, Miss D. M.	Toronto
C Rowan, Miss J. C.	Toronto	U Whitehead, J.	Ross Mount
C Rush, E. L.	Toronto	V Wilkinson, J. W.	Orono
U Ruth, F. S.	Toronto	U Wilson, J. T.	Ottawa
U Ryrie, Miss M.	Toronto	C Wood, Miss C.	Toronto
V Sanderson, M. R.	Burketon	V York, Miss J. E.	Toronto

Ontario Veterinary College

First Year

Name	Home Address	Name	Home Address
Cairns, G.	St. Mary's	Priestly, P. . .	Kerrobert, Sask.
Edge, G. A. ...	Thedford	Rumney, W. J.,	Victoria Harbour
James, F.	Hanna, Alta.	Spooner, A. D.,	South Barre, Vt.
Kelly, P.	Osgoode		U.S.A.
Lewis, M. T. ...	Stonewall, Man.	Standen, H. E.,	Chippewa Lake,
McCoy, J. O.	Snowflake, Man.		Ohio, U.S.A.
MacLean, F. . .	Toronto	Turnbull, W. J.,	Rathwell, Man.
Phillips, E. M.,	Fond du Lac,		
	Wis., U.S.A.		

Second Year

Anderson, J. G. .	Shepard, Alta.	Holmes, C. H. . .	Ottawa
Bickell, W. M. .	Bright	Jones, E. M. . .	Warton
Booth, G. R. . .	Edwards	Latimer, C. . .	Boissevain, Man.
Carpenter, E. R.,		MacDonald, H. S. C.,	
	Oak Lake, Man.		Glendyer, N.S.
Goodman, A. E. C. .	Toronto	McKelvey, S. . .	Alliston
Grant, V. A. . .	Stanwood, Iowa	Perry, L. D. . .	St. Albans, Vt.,
	U.S.A.		U.S.A.
Gray, J. S.,	Newton, N.J., U.S.A.	Phillips, N. C. .	Estevan, Sask.
Hagyard, C. E.,	Lexington, Ky.,	Quinlan, C. R. .	Stratford
	U.S.A.	Shirley, J. E. .	Leechburg, Pa.
Hancock, E. E. I. .	Port Hope		U.S.A.
Hanley, R. . . .	Loretto	Westerberg, H. P.,	Bloomfield,
Home-Hay, P. E.,			Conn., U.S.A.
	Kelvington, Sask.	Whyte, W. B. .	Heward, Sask.

Third Year

Baker, C. B. . .	Montreal, Que.	Kerslake, E. G. .	Hampton
Bishop, A. . . .	St. Johns, Nfld.	Lawson, D. J.,	Shoal Lake, Man.
Brown, E. S. . .	Napinka, Man.	Le Gard, H. M. .	Toronto
Browne, E. S. .	Bermuda, B.W.I.	Lindsay, T. B. .	Halifax, N.S.
Campbell, A. R.,	Inverness, N.S.	Macdonald, R.,	Shoal Lake, Man.
Clarke, F. A. . .	Greene, Maine	McLeod, A. W. .	Alexandria
Clark, G. M. . .	Hayfield, Man.	MacLeod, M. . .	Stornoway, Scot.
Coad, J. A. . . .	Arcola, Sask.	McNabb, A. L. .	Smith's Falls
Cuthbert, R. G.	Vancouver, B.C.	Roe, E.	Atwood
Egan, F. S. . . .	Rama, Sask.	Ross, W. A. . . .	Red Deer, Alta.
Elkow, S. R. . . .	Conrath, Wis.	Rouse, P. L. . .	Wattsburg, Pa.
English, D. N. .	Treherne, Man.	Side, L. S. . . .	Wallaceburg
English, J. R. .	Treherne, Man.	Slack, E. V. . . .	Hagersville
Gunn, W. R. . . .	Avonmore	Spencer, O. C. .	Detroit, Mich.
Harris, C. S. . .	Magog, Que.	Tingley, H. J. .	Grenfell, Sask.
Harvey, J. S. . .	Ithaca, N.Y.	Waggoner, L. R.,	
Heath, T. H. . .	Little Falls, N.Y.		Whitewood, Sask.
Hodgins, W. C. .	Newdale, Man.	Young, C. . . .	Forfar

Fourth Year

Name	Home Address	Name	Home Address
Anderson, H. H.,	Youngstown, Alta.	Lumsden, M. D.,	Trinidad, B.W.I.
Bond, E. W.	Portland	Mandley, E. G.	Toronto
Davis, M. M.,	Mount Hope, Wis.	Olson, C. W.	Blue Island, Ill.
Erickson, H. E.,	Menomonie, Wis.	Ormiston, R. R.	Raglan
Foster, O. A.	Campbellville	Owen, H. McL.	Toronto
Foster, R. S.	Tieton, Wash.	Pedersen, P. T.	Barrington, Ill.
Fox, R. V.	Alba, Miss.	Penhall, G. R.	Port Dover
Honeywell, H. M.	Cannifton	Rooks, G. P.	Trinidad, B.W.I.
Johnston, E. F.	Carp	Thomson, W. G.,	Keremeos, B.C.

Summary.

University of Toronto	29
University College	75
Victoria College	37
Trinity College	8
St. Michael's College	14
Ontario Veterinary College	88
Total	251

Teachers' Classes—Toronto

Second Year

Name	Home Address	Name	Home Address
Adams, C. W.	Toronto	McCredie, C.	Toronto
Bates, Miss A. E.	Toronto	McGregor, B.	Toronto
Biggart, J. R.	Toronto	MacGregor, Miss J.	Toronto
Cameron, R. C.	Toronto	Macklin, G. E.	Toronto
Chambers, Miss B. L. N.	Toronto	Manning, C. E.	Toronto
Collins, W. A.	Richmond Hill	Merritt, R. L.	Toronto
Cook, Miss I. M., Sutton West		Middleton, Miss J.	Toronto
Cringle, W. J.	Toronto	Mitchell, J. H.	Toronto
Crone, Miss M.	Toronto	Mitchell, Miss J. A.	Toronto
Davidson, Miss A. M.	Toronto	Monkman, W. C.	Toronto
Devitt, L. K.	Toronto	Moncreiff, Miss M. R.	Toronto
Dickinson, G. H.	Toronto	Nash, R. P.	Toronto
Doupe, H. A.	Port Credit	Norris, D. A.	Toronto
Feasby, H. G.	Toronto	Parker, H. T.	Toronto
Fick, E. L.	Toronto	Perkin, I. B.	Toronto
Fydel, M. R.	Toronto	Perrin, Miss M. W.	Toronto
Fydel, W. A.	Toronto	Pike, A. B.	Toronto
Game, J. M.	Toronto	Raymond, Miss U.	Toronto
Gibson, J. A.	Toronto	Robinson, Miss M. A.	Toronto
Glenn, E. H.	Mimico	Rutherford, G. C.	Toronto
Gowdy, D. M.	Toronto	Rutledge, G. V.	Toronto
Grigg, Miss M. E. J., ...	Toronto	Scott, F. M.	Toronto
Haig, A. P.	Toronto	Scott, J. H.	Toronto
Hancock, E. W.	Toronto	Schnick, F. W.	Toronto
Hartwick, W. E.	Toronto	Spence, F. A.	Toronto
Hewitt, B. H.	Toronto	Sutton, H. P.	Toronto
Houston, W. J.	Toronto	Thomas, Mrs. Mary S.,	Toronto
Hunter, A. C.	Toronto	Toll, C. E.	Milton
Kearney, Miss W. A.	Toronto	Tryon, Miss M. J.	Toronto
Kell, Miss C. L.	Toronto	Turner, Miss O. M.	Toronto
Kennedy, Miss F. I.	Mimico	Tyrrell, Miss M. A.	Toronto
Kirk, W. T.	Toronto	Wagg, J. C.	Toronto
Lang, Miss R. B.	Toronto	Walker, Miss L. M.	Toronto
Lavery, W. G.	Toronto	Watson, S. A.	Toronto
Long, M. W.	Toronto	Weir, Miss I. M.	Toronto
McCool, Miss A. C.	Toronto	Wells, Miss D.	Toronto
McCordic, F. M.	Toronto	Wright, Miss E.	Toronto

Third Year

Brethour, E. J., Jr.	Toronto	Martyn, H. L.	Toronto
Briggs, J. B.	Toronto	Mason, A. A.	Toronto
Code, J. A.	Toronto	McNaughton, O. J.	Toronto
Colvin, J. H.	Toronto	Nattress, Miss E. W.	Weston
Coulson, R. W.	Toronto	Richardson, S.	Toronto
Garbutt, E. P.	Toronto	Robson, Miss J. A.	Toronto
Howitt, C.	Toronto	Vardon, Miss M. D.	Toronto
Johnston, Miss H. A.	Toronto	Vickery, C. A.	Toronto
Mahoney, Miss H. L.	Toronto		

Fourth Year

Name	Home Address	Name	Home Address
Coventry, Miss J. M.	Toronto	Petrie, Miss M.	Toronto
Giffen, R. J.	Toronto	Richardson, W. L. C.	Toronto
Harvey, H. G.	Toronto	Thomas, E. H.	Toronto
Moyer, Miss V. E.	Toronto	Weir, Miss M.	Toronto
Payne, Miss L. J.	Toronto	Worden, O. O.	Toronto

Occasional Students—Teachers' Classes

Davidge, Miss M.	Toronto	Jarvis, Miss B. M.	Toronto
Duff, Miss A. I.	Toronto	McFarlane, Miss F.	Toronto
Faulkner, Miss D. G.	Toronto	Moore, Miss E. L.	Toronto
Fraser, Miss M. M.	Toronto	Schubart, Miss A. M. L.,	
Fenton, Miss M. A.	Toronto		Toronto
Gray, Miss V.	Toronto	Vaughan, A. H.	Toronto
Harrington, Miss H.	Toronto	Webster, Miss L.	Toronto
Hills, Miss J. J.	Toronto		

Teachers' Classes—Hamilton

Second Year

Ames, V. N.	Hamilton	Keys, G. P.	Hamilton
Appleton, D. T.	Hamilton	Parker, Miss M. F.	Hamilton
Atkins, Miss J. M.	Hamilton	Ricker, Miss V. M.	Hamilton
Campbell, Miss M.	Hamilton	Roszel, Miss J. M.	Hamilton
Colling, L. J.	Hamilton	Sabine, Miss M. F.	Hamilton
Duncan, Miss N. M.	Hamilton	Troup, Miss M.	Hamilton
Echlin, Miss G. M.	Hamilton	Witherspoon, Miss E.,	Hamilton
Johnston, Miss M. J.,	Hamilton	Woolcott, E. S.	Hamilton
Kennedy, Miss H. E.	Troy	Woolcott, A. O.	Hamilton

Occasional Students—Teachers' Classes

Aitken, Miss B.	Hamilton	McKenzie, Miss B.	Hamilton
Aitken, Miss M.	Hamilton	McKenzie, Miss K.	Hamilton
Bauer, Miss B. M.	Hamilton	MacLennan, Miss H.	Hamilton
Baxter, Miss A. E.	Hamilton	Medley, Miss M. B.,	Hamilton
Booker, Miss H. V.	Hamilton	Montgomery, Miss M. V.,	
Briggs, Miss M. E.	Hamilton		Hamilton
Burnett, Mrs. H. D.	Hamilton	Moore, Miss M. A.	Hamilton
Carr, Miss E.	Hamilton	Park, Miss F. A.	Hamilton
Cox, Miss B. E.	Hamilton	Roy, Miss E. G.	Hamilton
Cummings, Miss A.	Hamilton	Sellar, Miss A.	Hamilton
Elliott, Miss C. E.	Hamilton	Smith, Miss K. A.	Hamilton
Finlayson, Miss E.	Hamilton	Stuart, Miss N.	Hamilton
Hodd, Miss E. M.	Hamilton	Vokes, Miss H.	Hamilton
Hodd, Miss E. E.	Hamilton	Warner, Miss M. E.	Hamilton
Law, Miss E. H.	Hamilton	Wood, Miss J.	Hamilton
Little, Miss M. E.	Hamilton	Woolcott, Miss E. C.,	Hamilton
McCallum, Miss J. W.,	Hamilton		

Summer Session, 1921

Name	Home Address	Name	Home Address
Appleton, D. T.	Hamilton	Martyn, H. L.	Toronto
Bingle, T.	Grimsby	Mason, A. A.	Toronto
Brock, M. W.	Calgary, Alta.	Middleton, Miss J.	Toronto
Chambers, Miss M.,	Woodstock	Mitchell, J. H.	Toronto
Chambers, Miss H. G.,	St. Mary's	Nattress, Miss E. W.	Weston
Clarke, Miss L. M.,	Weyburn, Sask.	Norris, D. A.	Toronto
Colvin, J. H.	Toronto	O'Connell, Miss M.,	Peterboro
Coulson, R. W.	Toronto	Parker, H. T.	Toronto
Coventry, Miss J. M.	Toronto	Patten, F. G.	Toronto
Cowie, A. H.	St. Catharines	Poirier, Miss M. H.,	St. Catharines
Crone, Miss M. J.	Toronto	Prosser, T.	Bancroft
Cronk, Miss M. W.	Monteith	Robson, Miss J. A.	Toronto
Doupe, H. A.	Port Credit	Ross, A. M.	Toronto
Duff, Miss A. I.	Ottawa	Russell, Miss F. M.	Toronto
Elliot, A. H.	Toronto	Russell, R. V.,	Grand Valley, Que.
Fitzgerald, Miss W.	Ayr	Scott, J. H.	Shelburne
Fydel, M. R.	Toronto	Shoebottom, Miss B.,	Woodstock
Fydel, W. A.	Toronto	Stalker, C. M.	Parry Sound
Garbutt, E. P.	Toronto	Stewart, Miss J. I.	Toronto
Gibson, J. A.	Toronto	Switzer, Miss J. E.,	Ridgetown
Giffen, R. J.	Toronto	Thomas, E. H.	Toronto
Gignac, Miss I. Z.	Oakland	Thomson, C. E.	Hamilton
Hand, C. H.	Snowflake, Man.	Toll, C. E.	Milton
Harris, H. W.	Galt	Tuer, Miss M.	Port Hope
Hewitt, B. H.	Toronto	Wagg, J. C.	Toronto
Hills, Miss J. J.	Toronto	Watson, S. A.	Toronto
Howitt, C.	Toronto	Weir, Miss I. M.	Toronto
Hunter, A. C.	Toronto	Weir, Miss M. I.	Toronto
Johnston, Miss H. A.	Toronto	Wilker, M. J.	Claremont
Kell, Miss C. L.	Toronto	Wilson, Miss M. K.	Avonmore
Kennedy, Miss H. E.	Troy	Witherspoon, Miss E.,	Hamilton
Lynch, Miss R. A. M.	Ottawa	Woolcott, A. O.	Hamilton
McCredie, C.	Toronto	Woolcott, E. S.	Hamilton
McNabb, A. P.	Toronto	Worden, O. O.	Toronto
McNaughton, O. J.	Toronto	Wright, Miss E.,	New Toronto
Macklin, G. E.	Toronto		

Summary

Teachers' Classes, Toronto	116
Teachers' Classes, Hamilton	50
Summer Session	71
Registered Twice	40

Total 197

SUMMARY IN THE FACULTY OF ARTS.

(a) By Colleges.

University of Toronto	314
University College	1254
Victoria College	542
Trinity College	136
St. Michael's College	233
Registered twice	25
Total	2454

(b) By Years.

First Year	841
Second Year	469
Third Year	432
Fourth Year	289
Occasionals, Teachers'	
Courses, etc.	448
Registered twice ..	25
Total	2454

BOARD OF GRADUATE STUDIES.

Candidates for Ph.D.

Name	Home Address	Name	Home Address
Ainslie, D. S.	St. Marys	Lacey, A.	Toronto
Anderson, Miss M., Frederickton,		Leaf, W. B.	Pocatello, Ida.
	N.B.	Leim, A. H.	Fergus
Baker, A. W.	Guelph	McKellar, H. S.	Toronto
Bell, H. P.	Halifax, N.S.	MacLean, A.	Byron
Berkeley, G. H.	Toronto	McMullen, T. C.	Toronto
Berry, A. E.	Toronto	McQuarrie, W. C.	Toronto
Bogart, E. C.	Newmarket	McTaggart, H. A.	Toronto
Connor, A. J.	Toronto	Macklin, C. C.	London
Delph, L. W.	Toronto	Martin, W. H.	Toronto
Duff, G. H.	Hamilton	Moloney, P. J.	Scarboro Jct.
Dyer, W. S.	Toronto	Mossop, Miss B. E. K.,	London
Fetzer, W. R., University Place,		Nieuwejaar, O., Bergen,	Norway
	Neb.	O'Driscoll, Miss E.	Toronto
Ford, Miss N. H. C.	Toronto	O'Sullivan, P. M.	Toronto
Fraser, Miss C. J.	Toronto	Rebbeck, J. W., Vancouver,	B.C.
Fritz, Miss C. W.	Toronto	Robinson, G. C., Kansas City,	Kan.
Funnell, W. S.	Toronto		
Gaebler, O. H., Washington, Mo.		Sage, W. N., Vancouver, B.C.	
Gilbert, C. S.	Akron, Ohio	Sharp Miss D.	Beamsville
Haas, E. G.	Akron, Ohio	Shaver, W. W.	Iroquois
Haining, Miss H. I., Saskatoon,		Sheppard, N. E.	Toronto
	Sask.	Shrum, G. M.	Smithville
Hall, Miss B. L., Bridgewater,		Sifton, H. B.	Toronto
	N.S.	Staples, W. E.	St. Thomas
Hart, N. C.	London	Walker, A. R.	Toronto
Herzberg, O. W., Westmount,		Williams, G. A.	Akron, Ohio
	Que.	Willson, H. G.	Toronto
Ireton, H. J. C.	Perth	Wright, Miss J. G.,	Newcastle
Jeanneret, F. C. A.	Toronto	Wynne, A. M.	Toronto
Kemp, H. R.	Woodstock	Young, J. F. T.	Toronto
Kingston, G. F.	Windsor, N.S.		

Candidates for M.A.

Adamstone, F. B.	Toronto	Childs, S.	Toronto
Allan, R. A.	Toronto	Clark, Miss M. L.	Stouffville
Barfoot, W. F.	Collingwood	Coatsworth, Miss H. R.,	Toronto
Best, C. H., West Pembroke, Me.		Cohen, J. W.	Toronto
Borsook, H.	Toronto	Currie, J. E.	Wingham
Broughton, T. R. S., Corbetton		Davidson, J. F.	Peterborough
Brown, Miss H. M., Bona Vista,		Dawson, P. W.	Melfort, Sask.
	Nfld.	Dempsey, Miss A. E.,	Belleville
Brown, W. A.	Hamilton	Dorrance, R. L.	Kingston
Cale, Miss F. M.	Toronto	Name	Home Address
Cantelo, R. C.	Kingston	Eadie, Miss H. I.	Toronto
Carscallen, C. R., Chengtu,		Elliott, Miss N. E.	Belleville
	West China	Emory, V. H.	Toronto

Name	Home Address	Name	Home Address
Evans, W. D.	Toronto	Nevill, Miss R. M.,	Bartonville
Faichney, T. T.	Hamilton	Nicholson, J. A.	Valleyfield, P.E.I.
Findlay, D. M.	Toronto	Noble, E. C.	Toronto
Foley, G. J.	Toronto	O'Brien, Miss M. K.	Toronto
Fraser, G. E. M.	Ottawa	Oddy, H. G.	Toronto
Fritz, Miss M. A.	Toronto	O'Malley, Miss I. T.	Toronto
Gairns, Miss S.	Toronto	Overend, W. J.	Aurora
Gallagher, E. O.	Barrie	Panton, Miss J.	Winnipeg
Galt, Miss M. C.	Goderich	Pearce, J. A.	Brantford
Graper, Miss F. M.,		Pearen, Miss E. M.	Rockwood
	Fort Atkinson, Wis.	Petrie, P. A.	Brucefield
Guenther, J. F.	Hamilton	Phillips, J. F.	Toronto
Harstone, R. H.	St. Marys	Phillips, Miss L. M.	Toronto
Hart, H. R. L.	Toronto	Racicot, H. N.	Guelph
Harwood, Miss C. M.	Toronto	Robins, J. D.	Toronto
Holmes, A.	Toronto	Rotenberg, C.	Toronto
Horning, J. H.	Waterdown	Rowlan, Miss B. H.	Toronto
Horwood, R. B.	Toronto	Rutherford, Miss G. L.,	Brantford
Hutt, Miss J. I.	Toronto	Sanders, H. F.	Calgary, Alta.
Jackson, A. B.	Guelph	Scott, S. M.	Vancouver, B.C.
Jackson, Miss I. V.,	Downsview	Scott, W. F.	Toronto
Keeling, W. L.	Toronto	Shaw, H. F. R.	Clinton
Kirk, Miss H.	Woodstock	Shaw, T. P. G.	Montreal, Que.
Lane, Miss J. V.	Ottawa	Simester, J. H.	Saskatoon, Sask.
Lang, Miss J. M.	Toronto	Simpson, J.	Toronto
Langford, H. D.	Toronto	Smillie, Miss E. E.	Toronto
Lawson, Miss R.	Chesterville	Smith, Miss F. A.	Goderich
Levi, Miss M.	Toronto	Smith, H. G.	Toronto
Lorriman, F.	Thorold	Smith, M. P.	Hickson
Lowe, J.	Toronto	Smith, R. G.	Hickson
Lower, A. R. M.	Ottawa	Snelgrove, O. H.	Toronto
Lubovich, V. P.	Toronto	Stapells, H. G.	Toronto
Lucas, G. H. W.	Toronto	Stewart, Miss K. L.	Toronto
McCamus, W. R.	Brantford	Stokes, M. L.	Sombra
MacDonald, Miss E. M.,	Toronto	Stone, R. S.	Chatham
McDougall, J. L.	Ottawa	Strong, H. J.	Toronto
McGill, Miss E. M.	Toronto	Swanson, W. L.	St. Mary's
McGill, G. W.	Toronto	Taylor, Miss E. M.	Toronto
McKinney, E. H.	Norval	Vallentyne, H. J.	Toronto
McLean, E. C.	Guelph	Webster, Miss M. G.,	Beirut, Syria
McLeod, C. H.	Collingwood	Westman, A. E. R.	Ottawa
Marsh, H. H.	Lindsay	Whalen, Miss M.	Toronto
Mason, F. H.	Toronto	Wismer, K. L.	Humberstone
Morrell, J. A.	Hamilton	Wolfrain, H. C.	Castleton
Moss, W. H.	Thorndale	Wookey, Miss G. I.	Toronto
Murphy, Miss M. A.	Toronto		
Name	Home Address		
Mustard, W. M.	Uxbridge		

Candidates for M.D.

Banting, F. G.	Alliston	Maitland, H. B.	Toronto
Cameron, G. C.	Toronto	Miller, J. R.	Iroquois
Fidlar, E.	Toronto	Tisdall, F. F.	Toronto
Finch, O. E.	Croydon, Eng.		

Graduate Students

Name	Home Address	Name	Home Address
Andison, J. G.	Toronto	Levi, Miss R.	Toronto
Andison, Mrs. M. L.	Toronto	McAndrew, W. J.	Toronto
Bateson, Miss N.	Toronto	McDonald, J. L.	Iona, N.S.
Cho, H. Y., Noel, Hants Co., N.S.		McDougall, E. G.	Toronto
Cowie, Miss H.	Ottawa	Murray, Miss M. E., St. John,	N.B.
Eakins, C. G.	Napanee	Peene, Miss V. H.	Hamilton
Follick, Miss L. M. B.,	Port Perry	Pierce, L. A.	Toronto
Fraser, Miss E.	Stratford	Robinson, S. R.	Maple
Gale, Miss O. M.	Oshawa	Whitelaw, W. M.	Toronto
Higgins, Miss M. B.	London	Wright, C. M.	Toronto

Summary

Candidates for Ph.D.	57
Candidates for M.A.	114
Candidates for M.D.	7
Graduate Students	20
Total	198

FACULTY OF MEDICINE

First Year

Name	Home Address	Name	Home Address
Aberhart, W.	Seaforth	Healy, D. E.	Toronto
Ackland, W. E.	Ottawa	Heffering, R. J.	Toronto
Archibald, D. A.	Elora	Herman, B.	Toronto
Armstrong, J. P.	Ottawa	Hinton, Miss G. K.	Toronto
Armstrong, L. T.	Toronto	Hoffman, B.	Toronto
Baker, R. O.	Toronto	Horkins, H. A.	Campbellford
Baldwin, G.	Aurora	Huddart, Miss V. G.	Toronto
Berry, C. B. H.	Meaford	Hutchison, J. B.	Gorrie
Bier, L. B.	Brantford	Hutton, D. V.	Brantford
Borrowman, R. E.	Toronto	Jackson, G. H.	Port Perry
Bowers, N. H.	Massey	Jeffries, C. N.	Toronto
Brown, H. A.	Toronto	Jones, A.	Toronto
Browne, W. A.	Toronto	Kamitakahara, E.	Vancouver
Bull, H. T.	Weston	Kazdan, L.	Toronto
Cairo, Miss M. R.	Toronto	Kearns, G. H.	Orangeville
Campbell, A. J.	Owen Sound	Kelly, J. A.	Long Branch
Campbell, C. A. L.	Hamilton	Kelly, T. F.	Norwood
Cannell, D. E.	Port Carling	Kemp, D. L.	Forest
Case, G. L.	Toronto	Killoran, V. A.	Peterborough
Chesney, W. E.	Burford	Laidlaw, J. B.	Toronto
Clark, E. G.	Caledonia	Linton, F. D.	Port Credit
Clarke, L. A.	Toronto	Little, W. R.	Trenton
Craven, A. J.	Guelph	Lucas, T. A.	Sarnia
Crowther, T. A.	Fonthill	McDonald, Miss E. M.,	Sudbury
Curry, D.	Trenton	McGibbon, K. C.	Sarnia
Davidson, J. H.	Jarvis	McKay, J. B.	Owen Sound
Dillane, J. G.	Newmarket	McKeown, L.,	Moose Jaw, Sask.
Dinwoody, W. A.	Cookstown	MacLean, M. S.	Toronto
Duff, G. A.	Drayton	McMurray, E. M.	Niagara Falls
Edwards, H. E.	Seaforth	Macnamara, A. R.	Toronto
Elliott, O. E. A.	Chesley	MacNeil, A. C.	Oakville
Elliott, H. R.	Hamilton	MacNicholl, W. T.	Hamilton
Farmer, A. W.	St. Catharines	Macklin, L. A.	Goderich
Ferguson, C. R.	Ethel	Marritt, H. D.	Keswick
Ferrie, K. E.	Hamilton	Marshall, W. P.	Belleville
Flommerfelt, T.	Thorold	Marty, J. K.	New Hamburg
Fraser, Miss I. M.,	Hawkesbury	Meagher, J. E.	Guelph
Gillies, J.	Cedarville	Montemurro, G. A.	North Bay
Gleeson, T. H.	Napanee	Morgan, A. L.	Lindsay
Gordon, D. M.	Toronto	Morris, C. G.	Bowmanville
Graham, J. M.	Goderich	Mortimer, G. H.	Toronto
Grainger, Miss H. M.,	Creemore	Mulligan, T. J.	Sudbury
Grant, R. C.	Toronto	Mulock, Miss G. E.,	St. Catharines
Green, W. M.	Embro	Murray, P. J.	Cayuga
Greedy, J. H.	Toronto	O'Connor, Miss L.	Toronto
Guest, W. A.	Ottawa	Park, W. E.	Fair Ground
Hamilton, F. B.	Toronto	Patterson, E. B.	Paris
Harnick, I.	Toronto		

Name	Home Address	Name	Home Address
Peacock, H. J.	Toronto	Teskey, S.	Sarnia
Peeler, D. B.	Toronto	Thompson, J. H.	Grand Valley
Piper, R. S.	Fort William	Thompson, Miss M. J.,	Deseronto
Price, G.	Toronto	Uren, J. L.	Toronto
Pugsley, H. E.	Toronto	VanNostrand, F. H.	Vandorf
Robertson, G. S.	Whitby	Walker, L. A.	Waterford
Robinson, J. B.	Toronto	Walters, F. H.	Forest
Rosen, N.	Toronto	Warren, W. J.	Weston
Rudolph, C. R.	Elmwood	Webb, A. J. M.	Hamilton
Rutherford, G. H.	Blenheim	Weber, W. H.	Kitchener
Saddington, R. S.	Arnprior	Webster, J. W. R., Smith's Falls	
Sarles, R. M.	Frankford	Wharton, G. K.	Cayuga
Scandiffio, N. F.	Toronto	White, R. A.	North Bay
Secord, A. J.	Toronto	Wilson, A.	Oakville
Skinner, A. M.	Wilsonville	Wilson, J. A.	Thorold
Snelling, C. E.	Welland	Williams, J. K.	Beeton
Snyder, W. B.	Toronto	Williscroft, B. A., Owen Sound	
Spackman, R. H.	St. Thomas	Wood, C. R.	Toronto
Stevens, E.	Chesley	Wright, E. N.	Toronto
Stevens, G. C.	Dunham, Que.	Wrong, N. M.	Aylmer
Tansley, E.	Toronto	Young, A. E.	Toronto
Taube, E. L.	Toronto		

Second Year

Aikins, L. H.	Wallaceburg	Carr, C. W.	Thornton
Bain, T.	Toronto	Carson, W. H.	Chatsworth
Balfour, G. R.	Toronto	Chaikoff, J. C.	Toronto
Barclay, L. T.	Claremont	Clothier, W. J. K.	Ottawa
Barker, J. J.,	Prince Albert, Sask.	Coates, Miss L. F.,	Vancouver, B.C.
Barker, N. J.	Toronto	Coburn, W. A.	Nanaimo, B.C.
Bates, Miss J. L.	Toronto	Connolly, W. G.	Brechin
Beckett, M. B.	Brantford	Coulthard, H. S.	Toronto
Bell, E. G.	Copper Cliff	Cowie, G. A.	Brantford
Bennett, D. S.	Toronto	Croll, L. D.	Saskatoon, Sask.
Bennett, S. R.	St. Catharines	Cumming, G. S.	Chatham
Best, C. J.	Peterborough	Dawson, L. W.	Ballieboro
Black, L. W.	Hespeler	Deeton, W. L.	Toronto
Borron, R. W.	Toronto	Dell, C. A. O.	Niagara Falls
Boyd, J. H.	Toronto	Derbyshire, W. J. B.,	Sunnyside, Eng.
Brebner, W. B.	Toronto	Dorsey, M. C. C.	Cookstown
Bright, W. G.	Warton	Dowsley, G. A.	Mallorytown
Britnell, F. B.	Colborne	Dreyer, J. F.	Toronto
Bronstein, N. W.	Toronto	Easton, N. L.	Ayton
Bull, F. B.	Brampton	Esdale, W. R.	Ottawa
Burgess, J. H.	Ottawa	Fairfield, A. B.	Beamsville
Burt, C. F.	Brantford	Farnsworth, J. F.	Cannifton
Butters, H. L.	Niagara Falls	Ferguson, J. G.	Toronto
Cain, M. C.	Toronto	Fidler, K. A.	Toronto
Cameron, H. M.	Ottawa	Fielding, E. M.	Niagara Falls
Campbell, I.	Toronto	Fine, J. M.	Toronto
Campbell, I. P.	Grand Valley	Flahiff, E. W.	Paris
Campbell, J. G.	Toronto		

Name	Home Address	Name	Home Address
Fleming, Miss E. M.	Toronto	Lowrey, H. E. D.	St. David's
Fleming, F. J.	St. Mary's	Luckey, L. E. R.	Toronto
Forde, J. H.	Jamaica, B.W.I.	McCallum, J. D.	Lloydtown
Fowler, A. C.	Perth	McCannel, W. A.	Chesley
Fowler, C. J.	Kingston	McCombs, R. D.	Dunnville
Fralick, F. T.	Thornhill	McDermont, R.	Milton
Fraser, J. L.	Petrolea	McDonald, D. F.	Sutton West
Gardiner, W. J.	Midland	McDonald, P. W.	Colborne
Gies, A. H.	Hamilton	McGee, A. R.	Norwood
Goodchild, S. F.	Toronto	M'Gonigle, R. H.	Newmarket
Goodwin, J. C.	Niagara Falls	McMullen, R. E.	Toronto
Gordon, M. K.	Caledonia	McNeely, Miss C. A.,	
Gordon, S. D.	Agincourt		Carleton Place
Graham, C. B.	Oakwood	McNiven, E. L.	Victoria, B.C.
Griffith, J. R. I.	Toronto	Manaceveth, B. A.	Toronto
Guay, A. J. L.	Calgary, Alta.	Manaceveth, G.	Toronto
Hain, C. W.	Toronto	Mason, P. W.	Simcoe
Ham, A. W.	Brantford	Mason, W. L.	Toronto
Harvie, D. A.	Midland	Matheson, J. A.	Granum, Alta.
Hassard, C. E. A.	Toronto	Mayne, J. E.	Drayton
Hatfield, W. H.,	Vancouver, B.C.	Miller, J. M.,	Moose Jaw, Sask.
Hemond, C. J.	Windsor	Moir, H. K.	Toronto
Henderson, J. G.	Troy	Murdoch, D. J.	Markdale
Henne, F. R.	Gananoque	Murray, S. S.	Dundas
Hershey, J. M.	Owen Sound	Nicholson, T. F.	Toronto
Higgs, W. D.	Victoria, B.C.	Oakes, W. A.	Guelph
Hisey, R. F.	Creemore	Paul, H. A.	Haileybury
Hobson, J. P.	Niagara Falls	Peart, H. E.	Burlington
Hooley, L.	North Bay	Potter, C. W.	Southbend
Hooper, L. N.	Little Britain	Pratt, D. W.	Toronto
Houser, G. F.	Toronto	Reeve-Newson, T.	Toronto
Hudson, L.	Toronto	Robertson, R.	Toronto
Huff, R. G.	Peterborough	Robinson, Miss H. S.,	Kleinburg
Huggard, L. H. A. R.,		Robson, W. D.,	
	Vancouver, B.C.		N. Westminster, B.C.
Hurwich, S. B.	Toronto	Roderick, J. H.	Stoney Creek
Hyland, H. H.	Toronto	Ross, H. M.	Vancouver, B.C.
Ireland, J. A.	Toronto	Ross, J. R.	Toronto
Irwin, D. A.	Toronto	Ruby, R. A.	Kemptville
James, A. P.	Toronto	Ryall, D. B.	Nanaimo, B.C.
James, G.	Vancouver, B.C.	Shaver, C. G.	Ancaster
Jamieson, T. J.	Ohsweken	Scher, J. N.	Toronto
Jones, G. H.	Claremont	Shipley, M. A.	Clinton
Kelly, G. C.	Hamilton	Sidenberg, I. I.	Toronto
Kennedy, A. S.	Beeton	Silverthorne, L. N.	St. Thomas
Kenney, W. G. C.	Acton	Silverton, T. L.	Toronto
Kirk, C. M.	Antigonish, N.S.	Sinclair, G. A.	Burlington
Kyles, N. B.	Toronto	Sinclair, J. W.	Regina, Sask.
Lang, L. V.	Kitchener	Smith, Miss F. M.,	
Laughton, J. L.	Walkers		Glanford Sta.
Leaver, L. R.	Toronto	Smith, W. E.	Hamilton
LeDrew, F.	Toronto	Snitman, M. F.	Toronto
Little, J. L.	Guelph	Soskin, S.	Toronto
Lively, F. M.	New Liskeard	Sparks, M. I.	Toronto

Name	Home Address	Name	Home Address
Stahl, H. F.	Kitchener	Waddington, H.	Brantford
Stahl, O. J.	Kitchener	Wade, C. W. ...	Vancouver, B.C.
Struthers, J. N. P.	Galt	Wagner, R. A.	Hamilton
Stuart, K.	Simcoe	Watson, J. L.	Toronto
Sullivan, J. A.	Toronto	Watt, G. L.	Brantford
Swart, H. A.	Simcoe	Weber, C. R.	Windsor
Sweet, T. A.	Hamilton	Welsh, W. K. ...	Scotland
Taube, N.	Toronto	Whaley, D. W.	Toronto
Teney, H. F.	Toronto	Wharton, T.	Cayuga
Thaler, A. F.	Elmwood	White, A. W. M.	Chatham
Thomas, Miss M. I.	Toronto	Whittier, Miss C. L.,	Elmsdale, N.S.
Usher, A. M.	Vancouver, B.C.	Wilcox, L. F.	Beeton
Vale, P.	Toronto	Wilson, A. K.	Regina, Sask.
Verity, G. E.	Brantford	Wylie, J. H.	Almonte
Verner, T. B.	St. Catharines		
Vivian, R. P.	Barrie		

Third Year—Six Years' Course

Abell, R. S.	Owen Sound	Duncan, Miss J. R. ...	Chatham
Alexander, H. J.	Norwich	Ely, C. W.	Beamsville
Amyot, G. F.	Ottawa	Fair, G. L.	Toronto
Armstrong, J. C.	Ottawa	Falconer, J. G.	Toronto
Baker, F. E.	Belleville	Fielden, E. C.	Toronto
Bicknell, H. E.	Toronto	Fleck, Miss M.	Toronto
Biehn, S. L.	Parry Sound	Fletcher, W. R.	Toronto
Birch, J. R.	Calgary, Alta.	Forrest, S. J.	Somerville, N.J.
Booth, C. S.	Mallorytown	Forster, Miss M. B.	Corunna
Boyce, R. W.	Belleville	Fraser, Miss F. ...	York Mills
Boyd, J.	Hamilton	Fried, J. S.	Toronto
Brillinger, F.	Stouffville	Gerow, G. H.	Colborne
Brown, W. H.	Regina, Sask.	Gimpel, S.	Toronto
Brummitt, R. B.,		Graham, W. L.	Galt
	Vancouver, B.C.	Gray, H. M.	Toronto
Cameron, J. M.	Toronto	Green, J.	Toronto
Campbell, Miss G. A.	London	Greer, H. J.,	Port Coquitlam, B.C.
Campbell, G. D. G.	Toronto	Gung, E. B.	Victoria, B.C.
Carscadden, W. G.	Lindsay	Hacking, L. C.,	New Westminster, B.C.
Catherwood, W. L.	Hagersville	Hakstian, A.	Brantford
Chu, P. Y. Y.,	Vancouver, B.C.	Hamilton, F. C.	Toronto
Clark, D. V.	Toronto	Hare, M. A.	Rosetown, Sask.
Couch, J. H.	Strathroy	Heaton, T. G.	Toronto
Coutts, G. S.	Bradford	Heggie, D. C.	Brampton
Davison, R. R.	Dundas	Henderson, D. N.	Toronto
deSouza, M. G.,		Hill, W. V.	Toronto
	New Amsterdam, B.G.	Hodd, D. G.	Hamilton
Devins, W. P.	Barrie	Horton, C. B.	Toronto
Deyell, J. S.	Peterborough	Hume, T. W. K.	Toronto
Dickson, B. R.	Thamesville	Jackson, J. E.	Auburn
Dill, J. L.	Dublin	Johnston, W. C.	Exeter
Doran, Miss M. V.	Iroquois		
Duncan, A. H.	Toronto		

Name	Home Address	Name	Home Address
Kelly, A. D.	Toronto	Roach, C. J.	Vancouver, B.C.
Knowlton, C. E.	Toronto	Robinson, L. E.	Aurora
Landsborough, A. M.,		Rumball, W. C.	St. Catharines
Port Credit		Rudd, M. S. K.	Parry Sound
Lantsevitsky, N, Litovsk, Russia		Russell, W. H.	Toronto
Laxton, J. E., Jr.	Toronto	Schwab, J.	Toronto
Lockhart, J. L.	Midland	Scott, R. F.	Toronto
McCarthy, K. C.	Toronto	Scott, W. C. M.	Omeme
McCormick, N. A.	Walkerville	Seltzer, I. E.	Toronto
McFadden, J. L., Victoria, B.C.		Senn, J. N.	Caledonia
MacGowan, G. A.	Toronto	Sher, Miss M.	Toronto
McGregor, G. W.	Inglewood	Singer, Miss M.	Toronto
McGuire, C. T.	Merritton	Smith, A. G.	Toronto
McIntosh, J. S.	St. Catharines	Soanes, E. P.	Aurora
Mackay, R. P.	Toronto	Stainsby, W. J., Saskatoon, Sask	
Maclea, D. L.	Harriston	Steele, T. M.	Stratford
McLean, G. C.	Collingwood	Stillman, I.	Toronto
Mark, E. C., Hong Kong, China		Strain, F. A.	Gore Bay
May, C. R.	Melfort, Sask.	Strangway, W. E.	Petrolea
Middlebro, J. P.	Owen Sound	Streb, D. L. M.	Toronto
Millar, J. W.	Castleton	Stringer, F. H.	Dawson, Y.T.
Miller, W. H.	Toronto	Sutherland, J. L.,	
Mills, Miss G.	Toronto	Holland Centre	
Milne, J. E.	Elmwood	Syer, G. E.	Fraserville
Milne, R. E. A., Niagara Falls		Taylor, A. C.	Oshawa
Mitchell, C. L.	Victoria, B.C.	Trick, H. W.	Oshawa
Mitchell, H. O.	Victoria, B.C.	Teasdale, H. R.	Massey
Monaghan, H. J., New Hamburg		Urquhart, D.	Toronto
Muir, W. S.	Niagara Falls	Vine, G. D.	London
Murchison, E. B.	Cambray	Vokes, H. A. S.	Toronto
Murray, L. L., Jamaica, B.W.I.		Walker, J. E.,	
Naden, J. R.	Victoria, B.C.	N. Westminster, B.C.	
Nicholson, Miss M. A., Lucknow		Wallis, Miss G. E.	Clinton
Ogden, C. E.	Toronto	Westman, E. R.	Toronto
O'Gorman, J. T.	Toronto	Wiley, W. R.	Toronto
Ormerod, M. J.	Toronto	White, C. O.	Toronto
Paterson, J. C.	Sarnia	Wilkins, W. R.	Toronto
Patry, F. L.	Toronto	Williamson, F. M.	Priceville
Pember, F. R.	Toronto	Williamson, G. S.	Toronto
Perry, Miss F. E., Victoria, B.C.		Wilson, C. H.	St. George
Plewes, D. F.	Toronto	Wilson, Miss M. E.	Toronto
Potter, H. F.	Clinton	Wolfson, H.	Toronto
Reid, Miss M. E.	London	Young, Miss A. M.	Toronto

Occasional Students

Bowie, D. J.	Toronto	MacDonald, J. L.	Toronto
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Third Year—Five Years' Course

Adams, J. H. F.	Toronto	Anderson, O. W.	Sundridge
Aitchison, D. B.	Hamilton	Armstrong, B. C., Calgary, Alta	
Allan, C. C.	Toronto	Atkinson, W. L.	Guelph
Allen, D. G.	Lakewood, Ohio	Baker, Miss F. M.	Toronto

Name	Home Address	Name	Home Address
Ball, W. M.	Sault Ste. Marie	Fenton, W. K.	Toronto
Barlow, H. S.	Toronto	Ferguson, T. G.	Toronto
Barr, Miss C. A.	Merlin, Ont.	Fetterley, Miss M. E.,	Winchester
Beasley, J. H.	Toronto	Finlay, H. H.	Yorkton, Sask.
Beatty, S. R.	Thomasburg	Fleming, D. R.	New Liskeard
Bell, A. M.	Priceville	Fowler, H. G.	Toronto
Bigelow, L. H.	Bethany	Gauld, R. L.	Mimico
Black, G. N.	Springfield	Gilchrist, R. A.,	New Westminster, B.C.
Boyden, R. W.	Ottawa	Glenney, W. R.	Little Britain
Brady, F. A.	Toronto	Gordon, G.	Toronto
Briant, T. E.	Toronto	Gossage, C. D.	Toronto
Bronstein, Miss R.	Toronto	Gray, F. E.	Listowel
Brown, M. H.	Trenton	Gray, T. W. A.	Millbrook
Buchanan, W. P.	Galt	Gray, W. G.	Courtright
Buckley, H. R.	Niagara Falls	Greenberg, J. H.	Toronto
Bull, F. L.	Weston	Griffin, B. M.	Coldwater
Byrne, U. P.,	N. Westminster, B.C.	Grove, J. H.	Toronto
Caldwell, W. S.	Ottawa	Hall, J. L.	Phelpston
Campbell, G. E.	Hamilton	Hames, C. F. W.	Aurora
Campbell, S. M.	Toronto	Hardy, A. W.	Oakwood
Caple, H. H.	Vancouver, B.C.	Hawkins, W. D.	Toronto
Carmichael, Miss A. I.,	Peterborough	Heaslip, P. T.	Dundas
Challener, R. E. S.	Toronto	Heath, T. R.	Orton
Chant, Miss E. H.	Toronto	Henderson, W. W.	Toronto
Charlton, W. H. M.	Weston	Henry, A. T.	Toronto
Chisholm, G. B.	Oakville	Henry, G. G.	Markdale
Clark, N. S.	Toronto	Herold, R. E.	Shakespeare
Clifford, C. H.	Toronto	Hershey, J. H.	Owen Sound
Clydsdale, E. S.	Mooretown	Hilliard, H. K.	Burk's Falls
Code, D. B.	Ottawa	Hodgins, B. A.	London
Cousland, P. A. C.,	Edinburgh, Scot.	Howse, G. O.	Aylmer
Coyne, D. R.	Leamington	Hunter, Miss D. L.	Toronto
Cray, J. F.	Guelph	Hurlburt, W. E.	Toronto
Currie, M. A.	Little Current	Janes, E. C.	Watford
Currie, G. C.	Little Current	Jaquith, L. E.	Toronto
Dales, C. W.	Drayton	Jennings, H. N.	Hagersville
Dalrymple, Miss L. A.,	Waskado, Man.	Johnstone, B. I.	Tara
Day, A.	Orillia	Junkin, C. I.	Toronto
D'Easum, L. G. C.,	New Westminster, B.C.	Keener, W. C.	Kitchener
Delamere, H. D.	Toronto	Keith, H. M.	Toronto
Dinniwell, O. C.	Warton	Kelly, A. B.	Toronto
Duncombe, K. L.	Waterford	Kenyon, B. B.	Blair
Dunlop, R. W.	Kintore	Kerr, H. T.	Toronto
Dyer, H. F.	Allandale	Laing, J. W.	Wyevalle
Elliott, G. A.	Nelson, B.C.	Lang, H. B.	Toronto
English, S. S.	Hamilton	Langhorn, C. R.	Hamilton
Everist, W. C.	Toronto	Latimer, R. H.	Beaverton
Faulkner, Miss I. G.,	Duntroon	LeFurgey, J. A.,	N. Bedeque, P.E.I.
Fawcett, J. T.	Mitchell	Liddy, F. J.	Toronto
		Lyon, L. A.	Oakville
		McAlister, H. R.	Hamilton

Name	Home Address	Name	Home Address
McAteer, J.	Toronto	Ridge, W. W.	Hamilton
McBain, R. W.	Hamiota, Man.	Riley, R. C.	Welland
McCartney, T. G.	Bethany	Robert, J. T.	Chatham
McClinton, J.	Goderich	Robinson, J. T. H.	Belgrave
McCosh, R. A.	Kincardine	Ross, J.	Toronto
McDonald, T. A.,	Deloraine, Man.	Ross, J. C.	Zealandia, Sask.
MacDonald, P. G.	Orillia	Rowley, A. E.	Toronto
Macdonell, R. V.,	Dalhousie Mills, Que.	Rynard, W. M. W.	Zephyr
McGarvey, M. R.	Petrolea	Sands, G. E.	Corunna
McGill, W. L.	Toronto	Scarlett, E. P.,	Portage la Prairie, Man.
Mackay, A. F.	Truro, N.S.	Scott, D. E.	Toronto
McKay, D. R.	Stayner	Sexsmith, E. L.	Ingersoll
McKinnon, A. L.	Toronto	Sharpe, W. C.	Toronto
MacLachlan, Miss S. R.,	Toronto	Shaw, E. S.	Guelph
McLellan, T. G.	Toronto	Sinnott, J. A.	Hamilton
McLeod, A. M.	Kincardine	Sloan, S. G.	Chatham
McMurray, W. J., Jr.,	Niagara Falls	Smylie, C. H.	New Liskeard
MacDonald, N.	Atherley	Spaulding, H. E.	Aurora
Madoo, S. C. V.	Toronto	Spratt, E. H.	Ottawa
Maloney, F. G. H.	Toronto	Standen, C. W.	Penticton, B.C.
Maltby, E. J.	Toronto	Stewart, D. W.	Toronto
Meehan, Miss G. B.,	Rochester, N.Y.	Stokes, L. S.	Mount Albert
Meekison, D. M.,	Vancouver, B.C.	Stone, R. S.	Chatham
Menzies, F. H.	Burk's Falls	Stott, S. J.	Toronto
Michell, G. E.	Toronto	Sykes, A. V.	Calgary, Alta.
Mitchell, H. C.	Toronto	Taylor, W. H.	Guelph
Montgomery, R. C.	Toronto	Thompson, C. E.	Stoney Creek
Mount, H. T. R.	Toronto	Thompson, R. A.	Zephyr
Munro, F. W.	Toronto	Thompson, T. W.	Port Credit
Murphy, W. M.	Owen Sound	Truax, A. J.	Toronto
Mustard, J. M.	Uxbridge	Tyrell, J. D.	Hamilton
Neelin, W. E. E.	Richmond W.	Urquhart, A. M.	Oakville
Neilson, J. R.	Stratford	Urquhart, R. W. I.,	Moose Jaw, Sask.
Nichols, T. R.	Stratford	Vanderburgh, A. W.,	West Summerland, B.C.
Noble, J. H.	Toronto	Veale, W. T. J.	Bowmanville
O'Neill, C. N.	Clandeboyne	Volinsky, I. R.	Toronto
Orr, Miss J. S.	Toronto	Waddell, R. R.	Hamilton
Owens, Miss M.,	Grenville, Que.	Wansbrough, R. M.,	Grand Valley
Page, S. U.	Toronto	Warner, O. M.	Toronto
Parry, G. O.	Toronto	Watson, G. H.	Port Credit
Paton, W. M.	Toronto	Weaver, R. T.	Toronto
Phillips, M.	Dundalk	Welsh, H. E.	Moir
Pinchin, A. H.	Toronto	Westcott, D. B.	Collingwood
Pratt, C. H.	Chesley	White, C. C.	Chatham
Proud, R. H.	Toronto	White, M. F.	Lindsay
Purdy, A. D. T.	Toronto	White, Miss K. M.,	Moose Jaw, Sask.
Richards, C. A.	Millbrook	Wilcox, F. A.	Toronto
Richer, Miss F.,	Three Rivers, Que.	Wildfang, E. J.	Moorefield
		Wilkins, A. R.	Toronto

Name	Home Address	Name	Home Address
Williams, J. E.	Port Credit	Wylie, W. A.	Blackwater
Williams, W. O.	Cardinal	Zarnke, E. E.	Conestoga

Fourth Year

Anderson, W. K.	Chatham	Douglas, H. S.	London
Andrew, O. F.	Oakville	Dunning, G. W.,	Amherstburg
Arbuckle, D. S.	Toronto	Dunton, A. S.	Paris
Baker, Miss G.	Chatham	Dusseau, C.	Toronto
Baker, S. E.	Toronto	Ewing, C. H.	Fergus
Ballantyne, P. M.	Toronto	Fallon, J. T.	North Bay
Barnes, L. S.	Kipling, Sask.	Farley, J. W.	Trenton
Barton, E. R.	Toronto	Fatum, O.	Gowanstown
Batson, H. H.	Brantford	Fisher, M. M.	Kippen
Beaton, C.	Owen Sound	Fisher, R. S. M.	Georgetown
Beattie, O. M.	Batteau	Ford, J. R.	Dutton
Bell, J. K.	Kamloops, B.C.	Fitzgerald, G. J.	Vasey
Belyea, C. C.	Kenora	Fortune, C. W.	Walkerton
Bennett, A. E.	Grand Valley	Foster, G. V.	Toronto
Binning, G. G. T.,		Fowler, M. N.	Hamilton
	Moose Jaw, Sask.	Frank, F. W.	Hamilton
Bishop, C. A.	Toronto	Gamble, J. E. D.	Brantford
Blott, R. D.	Dunnville	Gauld, Miss F. M.	Toronto
Bochner, M.	Toronto	Gauld, W. H.	Mimico
Bochner, T. N.	Toronto	Gebirtig, T.	Toronto
Boulding, C. R.	Putnam	Gemmell, J. G.	Ayr
Boulter, L. W.	Picton	Gilbertson, R. L.	Simcoe
Bradley, B. V.	Toronto	Glass, S. J.	Toronto
Brewster, W. R.	Brantford	Gleeson, H. J.	Napanee
Brown, G. W.	Lyn	Golden, I. M.	Toronto
Burridge, Miss M. F.,		Goldberg, L.	Toronto
	Victoria, B.C.	Graham, J. D.	Toronto
Cameron, H. G.,		Graham, R. W.	Toronto
	Saskatoon, Sask.	Graham, W. L.	Lobo
Campbell, D. M.	Strathroy	Gratz, C. M.,	Sunnyslope, Alta.
Carrie, D. S.	St. Thomas	Greenberg, D. Y.	Windsor
Carson, J. E.	Owen Sound	Grierson, N. B.	Hanover
Carson, R. J.	Orillia	Grieve, J. G.	Stratford
Cavanagh, J. L.	Owen Sound	Griffin, F.	St. Thomas
Caven, W. R.	Toronto	Hall, G. C. R.	Little Britain
Cohen, J. L.	Toronto	Hall, S.	Pyong Yang, Korea
Cohen, W. A.	Toronto	Hanley, E. G.	Midland
Cole, M. S.	Brantford	Hardie, G. C.	Victoria, B.C.
Colvin, L. T.	Picton	Hare, Mrs. R. B.	Toronto
Comisky, Miss E. H.,		Harkins, E. B.	Toronto
	Richmond Hill	Harold, R. L.	Caron, Sask.
Cook, Miss S. M. L.	Toronto	Harris, C. S.	Toronto
Copeman, E. S.	Paris	Hayes, J. J.	Phelpston
Copp, E. F. F.	Clinton	Hazen, G. M. T.,	Saskatoon, Sk.
Couch, A. J.	Toronto	Henderson, W. S.	Sarnia
Crowe, L. L.,	Bridgetown, N.S.	Henry, L. L.	Niagara Falls
Denison, L.	Toronto	Hipwell, R. E.	Alliston
Dimitroff, T.	Toronto	Hoover, J. N.,	Edmonton, Alta.

Name	Home Address	Name	Home Address
Hunt, V. G.	Calgary, Alta	Murray, L. M.	Toronto
Hurst, D. D.	Fullarton, Sask.	Neelands, R. J.	Forest
Hynes, B. J.	St. Catharines	Nichol, K. D.	Brantford
Ireland, G. I.	Trenton	O'Connor, M. J.	Toronto
Jessel, L.	Toronto	Oke, Miss I. R.	St. Catharines
Johnston, J. A.	Kars	Orechkin, L.	Windsor
Johnston, J. L.	Inwood	Page, N. A.	Brockville
Johnston, W. V.	Auburn	Papish, A.	Toronto
Jones, E. M.	Hamilton	Parnell, H. M.	St. Catharines
Judson, F. M.	Lyn	Patterson, J. A.	Walkers
Kenny, W. G.	Hamilton	Pauley, G. E.	Gananoque
Kernick, M. O.	Toronto	Perkin, F. S.	Toronto
Kilgour, D. G.	Guelph	Philp, D. P.	Toronto
Knight, E. W.	Toronto	Philp, W. G.	Toronto
Kohan, M.	Toronto	Polack, S. S.	Toronto
Kreiner, J. H.	Kitchener	Pritchard, J. R.,	
Kruger, W. C.,	Edmonton, Alta.		North Wakefield, Que
Large, R. G.	Toronto	Radcliffe, E. J.	Toronto
Lavine, I.	Toronto	Rahner, H. R.,	Rochester, N.Y.
Lehrman, D.	Toronto	Ranta, O. O.	Toronto
Levin, S. J.	Toronto	Rhodes, Miss G.,	
Levinson, R. M.	Kenora		Bergerville, Que.
Lewis, F. I.	Orangeville	Riddell, J. R.	Millbank
Long, E. C.	Listowel	Robertson, Miss E. M.,	
Luke, W. R. F.	Toronto		Portage la Prairie, Man.
Lyon, E. K.	Blythe	Robinson, A. J.	Toronto
MacCallum, A. P.	Dutton	Robinson, P. J.	Toronto
McCluskey, E. R.	Alliston	Ross, A. C.	Kirkfield
McCormick, Miss H. H.	Toronto	Ross, J. W.	Stratford
McCormick, W. K.	Amherstburg	Ross, S. G.	Toronto
McDonald, J. J. A.	Orillia	Rowen, E. H.	Guelph
McEachern, J. M.,	Winnipeg,	Ruskin, S. H.	Windsor
McInnis, T. J.	Regina, Sask.	Sackin, I. J.	Toronto
Mackay, D. A.	Ingersoll	St. John, H.F.	Uxbridge
McKee, W. A.	Millbank	Sansone, A. J.	Hamilton
McKenzie, R. D.,	Hanley, Sask.	Scott, F. J.	Barrie
McMaster, E. A.	Utopia	Serles, H. R.	Niagara Falls
Maginley, H. D.,		Shaver, E. O.	Toronto
	Antigua, Lyons, B.W.I.	Shaw, A. E.	Bluevale
Mahaffy, A. F.	Cromarty	Shields, W. L.	Coboconk
Maitland, C. W.	Toronto	Silverman, N. E.	Kenora
Manning, R. F.	Forest	Simpson, R. N.	Thornhill
Markowitz, J.	Toronto	Singleton, A. C.	Toronto
Melling, P.	Evansburg, Alta.	Slaughter, C. B. P.	Toronto
Miller, H. R.	Selkirk	Smart, J. B.	Brockville
Miner, H. B.	Humberstone	Snell, G. C.	Toronto
Moffat, G. F.	Weston	Snell, J. W.	Dutton
Montgomery, A. E.	Tiverton	Snider, D. I.	Windsor
Montgomery, S. R. P.	Toronto	Spence, C. A.	Toronto
Monypenny, Miss A. D.,	Toronto	Spence, J. E. H.	Orangeville
Moore, W. N.	Uxbridge	Spratt, L. M.	Caledonia
Morgan, A. E.	Toronto	Stone, W.	Toronto
Morton, W. R.	Proton Station	Streets, C. W.	Bridgeburg
Mowat, H. F.	Acton		

Name	Home Address	Name	Home Address
Summerfeldt, Miss P. F.,	Toronto	Tufford, N. G.	Toronto
Swan, D. C. S.	Toronto	Urquhart, J. L.	Uxbridge
Switzer, W. A. W., Science Hill		Walker, R. J.	Smith's Falls
Symington, J. B.	Camlachie	Walters, W. R.	Toronto
Taylor, O. L.	Bolton	Walton, G. R.	Toronto
Temes, J. H.	Toronto	Wellwood, G. R., Richmond Hill	
Temes, S.	Toronto	Wilson, W. H.	Toronto
Teskey, L.	Toronto	Wilson, W. S.	Toronto
Thomas, C. H.	Forest	Wolseley, R. G.	Campbellville
Torrance, A. M.	Listowel	Woodrow, W. H.	Coldwater
Trimble, F. R.	Cottam	Woolfson, J.	Toronto
Truscott, R. S.	Hamilton	Wright, F. W.	Tottenham
		Young, Miss P. V.	Peterborough

Fifth Year

Allan, F. N.	Wroxeter	Ferrier, C. W. G.	Mimico
Anderson, J. O.	Toronto	Fine, H. P.	Toronto
Appel, S.	Toronto	Fleming, E. G.	Cobourg
Armstrong, G. W.	Uxbridge	Forrest, J. A.	Toronto
Balfe, T. H.	Hamilton	Francis, A.	Vancouver, B.C.
Bates, J. E.	Toronto	Garratt, Miss G. C.	Toronto
Bell, E. C.	Stayner	Gill, D. G.	Victoria Harbour
Bell, J. W.	Harrow	Gordon, H.	Toronto
Benson, J. G.	Wellington	Gordon, R. I.	Stratford
Bicknell, E. A.	Toronto	Graham, A. H.	Grelley, Colo.
Bird, E. S.	Gananoque	Grainer, M.	Toronto
Bird, H. G.	Gananoque	Green, N. H.	Agincourt
Boley, J. P.	Toronto	Grigg, V. S.	Bruce Mines
Bowyer, Miss M. E.	Toronto	Glassberg-Volpe, A.	Toronto
Boyes, T. L.	Hamilton	Hale, A. S.	Toronto
Bryan, C. G.	Toronto	Hamill, F. C.	Meaford
Bull, R. C.	Weston	Hamlin, L. E.	Kincardine
Burrows, Miss D. J.	Harriston	Harcourt, J. A. A.	Cayuga
Byers, J. W. R.	Bailieboro	Hare, R. B.	Toronto
Carrow, G. W.	Toronto	Harris, G. W.	Rodney
Carruthers, W. L.	Elmvale	Hart, H. J.	Omeme
Carson, R. A.	Barrie	Harvey, M. C.	Arthur
Case, G. E.	Dungannon	Harvey, W. H.	Princeton
Chase, Miss L. A.,		Haskett, F. H.	Watford
Greenwich, N.S.		Heard, K. M.	St. Thomas
Chester, J. F. V.	Toronto	Helston, G. E.	Toronto
Chung, Miss V.	Victoria, B.C.	Hendry, J. R.	Toronto
Claridge, V. O.	Grand Valley	Henry, C. R.	Drayton
Cleghorn, I. M.	Baldur, Man.	Hetherington, H. W.,	
Cosgrove, K. W., Asheville, N.C.		St. Catharines	
Crowley, L. J.	Stratford	Hewgill, J. C.	Toronto
Cruikshank, F.	Weston	Hopkins, J. E.	Stoney Creek
Cumming, J. F.	Chatham	Hubbard, J. P.	Forest
Danard, B. P.	Owen Sound	Hutchison, J. H.	Kinley, Sask.
Dickson, J. A.	Niagara Falls	Hutton, F. T.	St. Mary's
Eisen, D.	Toronto	Ireland, F. A.	St. Catharines
Ellis, E. G.	Sarnia	Ives, R. E.	Colborne
Farquharson, R. F.	Toronto	Jackson, J. L., Edmonton, Alta.	

Name	Home Address	Name	Home Address
Johnson, J. H.	Kenora	Patterson, F. R. C.	Perth
Junkin, F. L.	Toronto	Perfect, F. R.	Toronto
Kilgour, A. J.	Cornwall	Phillips, H. S.	Smith's Falls
Kiteley, P.	Glen Allan	Pollack, J.	Toronto
Laing, W. C.	Brantford	Pratt, R. S.	Laurel
Lancaster, W. E. G.,	Kingsville	Prendergast, D. J.	Toronto
Lang, R. S.	Orono	Riddell, W. R.	Beaverton
Lee, W. W.	Toronto	Runnang, D. H.	Agincourt
Linklater, E. W.	Wingham	Russell, Miss M. P. ...	Toronto
Logan, H. D.	Niagara Falls	Sarvis, E. S. ...	Bindloss, Alta.
Lowrie, R. J.	Toronto	Scott, H. R.	Toronto
McClelland, J. C.	Brampton	Shaul, N.	Toronto
McClure, R. B. Shantung, China		Shaul, S.	Toronto
McClure, W. B.	Toronto	Shaw, Miss V. A.	Windsor
McCormack, O. L.	Toronto	Shier, L. V.	Toronto
McDonald, R. H.	Lakeside	Shoniker, H. J.	Toronto
McDonald, W. G.	Toronto	Sievenpiper, S. H. ...	Toronto
MacFarlane, J. A.,		Sinclair, K. Y.	Toronto
	Nokomis, Sask.	Skinner, H. A. L.	Guelph
McFaul, A. M.	Collingwood	Smith, C. G.	Sydney, N.S.
McGarry, J. R.	Niagara Falls	Speck, J. T.	Toronto
McGarvah, A. W. ...	Windsor	Speers, Miss F. E.	Toronto
Mackersie, W. G.	Atherley	Stanley, A. M.	Lucan
McLatchie, Miss L. D.,		Stephens, R. W. ...	Warton
	Calgary, Alta.	Stoddart, W. O.	Woodville
McLellan, C.	Mount Forest	Sullivan, O. P.	Orillia
Macnamara, H. O.	Toronto	Taylor, R. E.	Woodstock
Markowitz, C. A.	Toronto	Templin, Miss M. I. ...	Fergus
Martin, C. A.	Milton	Thomas, M. E.	Toronto
Martin, G. G. ...	Campbellford	Thompson, A. A.,	
Merifield, R. C.,			Penetanguishene
	Swift Current, Sask.	Tom, Miss M. I.	Goderich
Merritt, E. G.	Chatham	Trapp, Miss D. M.,	
Minns, J. E.	Tweed		New Westminster, B.C.
Morris, R. H.	Middleton, N.S.	Tucker, W. L.	St. Thomas
Mounce, A. R. E.	Oshawa	Underhill, F. W.	Aurora
Myers, F. C.	St. Marys	Watson, M. C.	Toronto
Nesbitt, Miss E.,		Wells, J. G.	Toronto
	Hartshorn, Alta.	Wellwood, M. B.,	Richmond Hill
Nodwell, G. R.	Grand Valley	Wigle, D. St. J.	Windsor
Ogilvie, J. M.	Toronto	Williams, C. V.	Toronto
O'Leary, F. J.	Orillia	Wilson, W.	Toronto
Palmer, W. S.	Toronto	Wladowsky, Miss M. ...	Toronto
Pamphilon, W. M.	Toronto	Wong, H. A.	Aylmer

Diploma of Public Health Students

Berry, E. G.	Toronto	Jackson, G. P.	Toronto
George, R.	Toronto	Letts, F. L.	Glenworth
Graham, W. A.	Toronto	Woodhouse, C. F.	Toronto
Hazlewood, J. F.	Toronto		

Post-Graduate Students

Name	Home Address	Name	Home Address
Best, A. E.	West China	Holgate, H.	Toronto
Gaviller, C.	Toronto	McCaffrey, P. S.	Toronto
Hogg, A.	West China	Preston, H. F.	Toronto

Summary

First Year	137
Second Year	189
Third Year (6 years' course)	145
Third Year (5 years' course)	209
Fourth Year	220
Fifth Year	157
Post Graduate Students....	6
Candidates for D. P. H.....	7
Occasional Students	2
Total	1072

FACULTY OF APPLIED SCIENCE AND ENGINEERING

First Year

Name	Home Address	Name	Home Address
Agnew, R. J.	Toronto	Geddes, M.	St. Thomas
Ahara, L. D.	Toronto	Gordon, K. S.	Pembroke
Allan, J. C.	Toronto	Griffith, B. C.	Toronto
Anderson, J. G.	Toronto	Hanna, A. L.	Port Carling
Angus, W. M.	Ft. William	Hansen, W.	Gravenhurst
Atkinson, C. S.	Haileybury	Harrop, A. C.	Calgary, Alta.
Bailey, E. T. W.	Lakefield	Heard, C. G.	St. Thomas
Balger, J. P.	Toronto	Hewitt, H. L.	Toronto
Baker, M. H.	Goderich	Hobden, B. J.	Toronto
Ballard, A. H.	Niagara Falls	Holmes, H. B.	Toronto
Beatty, G. A.	Cannington	Hopper, C. M.	Toronto
Booth, C. A.	Toronto	Hubbard, E. B.,	
Bridge, J. F.	Kincardine		Los Angeles, Cal.
Bingham, T. E.	Georgetown	Hughes, G. J.	Drayton
Boake, W. R.	Toronto	Hughes, W. C.	Hepworth
Bruce, D.	Tavistock	Hunter, L. N.	Brampton
Buck, C. J.	Georgetown	Inglis, G. F.	Hamilton
Burbank, E. F.	Toronto	Jenkins, T. H.	Toronto
Busselle, S. M.	Toronto	Jones, S. M.	Brantford
Cade, J. G.	St. Marys	Kellam, B.	Toronto
Cameron, W. J.	Toronto	Kennedy, J. W.	Hamilton
Campbell, W. J.	Ridgetown	King, V. B.	Woodstock
Capon, I. M.	Toronto	Kirn, K. A.	Peterborough
Carruthers, W. R.	Toronto	Leadbetter, J. B. S.	Toronto
Cathcart, S. V.	Courtwright	Lee, D. A. S.	Toronto
Chappel, A. B.	Mitchell	Legge, T. A. T.	Oak Ridges
Claridge, R. E.	Toronto	Lillie, V. B.	Toronto
Clipsham, W. B., Sparrow Lake		Lindsay, J.	Georgetown
Coates, W. H.	Seaforth	Little, E. M.	Iroquois Falls
Connolly, E. F.	Collingwood	Lloyd, D. S.	Sault Ste. Marie
Coulter, W. W. H.	Toronto	Lloyd, W. G.	Hamilton
Craigie, G. B.	Oak Ridges	McBrien, R. E.	Peterboro
Cuthbert, A. B.	Lindsay	McClanahan, R. J.	Fergus
DeCou, D. D.	Strathroy	McClelland, P. A.	Toronto
Dickenson, F. R.	Toronto	McColl, F. H.	Brighton
Dickson, J. S.	Campbellford	McColl, J. A.	Toronto
Domm, E. C.	Ayton	McCullough, J. F. K., Peterboro	
Dowler, E. A.	Galt	McKenna, W. G. G.	London
Dunbar, W. H.	St. Marys	McKenzie, B. J.,	
East, L. A. W.	Stratford		Wawanesa, Man.
Fawcett, W. L.	Sarnia	McLean, D. J.	London
Feick, C. G.	Warton	McNab, J. B.	Gravenhurst
Flett, D. D.	Toronto	MacLean, C.	Napanee
Fowlie, G. H.	Belleville	Macpherson, N. E.	Cornwall
Frampton, A. H.	Toronto	MacQueen, A. J. F.,	
Fraser, K. W.	Pembroke		Sault Ste. Marie
Garnham, F. T.	Tillsonburg	Manuel, F. R.	Toronto

Name	Home Address	Name	Home Address
Marsales, F. L.	Mitchell	Shaw, W. U. ...	Manitowaning
Maxwell, J. O.	St. Marys	Shurly, E. C.	St. Catharines
Melick, D. L.	Dunnville	Silver, A. D.	Dartmouth, N.S.
Milne, F. J.	Belton	Smith, H. C.	Toronto
Milne, J. M.	Belton	Smith, J. D.	Port Hope
Milne, W. S.	Toronto	Somerville, K. R. ...	Wainstead
Miller, H.	Regina, Sask.	Spence, C. L.	Dunnville
Millican, J. F.,		Steele, W. H.	Toronto
	Medicine Hat, Alta.	Stephens, G.	Clarkson
Morgan, C. W.	London	Strickland, V. D. ...	Hamilton
Morton, A. D.	Oakville	Switzer, H. R.	Toronto
Murphy, H. T.	Brookfield	Sullivan, G. B.	Guelph
Nichol, W. E.	Brantford	Takaba, S.	Japan
Nicholson, G. W.	Toronto	Tanton, J. F.	London
Nodwell, M. C.	Hillsburg	Taylor, R. E.	Toronto
Noon, W. H.	Toronto	Teagle, R. M.	Toronto
Norman, H. L.	Toronto	Thom, D. S.	Pembroke
Oke, A. R.	Toronto	Thompson, W. L.	Belmont
Osburn, M. P.	Batteaux	Toye, A. M.	Toronto
Paisley, R. S.	Markham	Trenouth, J. P.	Powassan
Papst, H. W.	Amherstburg	Tribble, G. B.	Bolton
Parker, K. F.	Humber Bay	Trotter, H.	Calgary, Alta
Parliament, H.	Woodville	Turnbull, A. D.	St. Marys
Patterson, A. S.	Hamilton	Turner, W. I.	Toronto
Patterson, T. M.	Kincardine	Van Horne, C. H.	St. Thomas
Pearen, J. E.	Toronto	Waines, R. T.	Toronto
Pearson, J. W.	Toronto	Walker, J. W. C.	Toronto
Peart, A. W. M.	Aldershot	Wallis, F. J.	Clinton
Perry, S. W.	Uxbridge	Wanless, G. A.	Windsor
Phelps, M. W.	Merritton	Watson, F. W.	Elmira
Pickford, G. S.	Toronto	Welland, R. W.	Galt
Polack, D. L.	Toronto	Wells, T. H.	Waterloo
Potter, C. E.	Toronto	Wellwood, F. E.,	Richmond Hill
Pritchard, W. R.	Toronto	Whatmough, F. R. ...	Stratford
Ratz, H. G.	Toronto	White, J. A.	Toronto
Raymant, F. G.	Willowdale	White, P. L.	Toronto
Riches, C. H.	Streetsville	Whitson, D. D.	Toronto
Robertson, R. M.	Toronto	Whitton, H. G. G.	Toronto
Robins, C. P.	Toronto	Wigle, A.	Amherstburg
Ryan, J. W.	Georgetown	Wilcox, J. E.	Beeton
Ryrie, J.	Toronto	Wyatt, D.	Toronto
Sangster, F. A.	Stouffville	Yuill, S. W.	Brussels
Shaw, F. A. C.	Wallaceburg		

Second Year

Adamson, J. C. ...	Lambton Mills	Baker, H. N. ...	Toronto
Adams, H. C. ...	Lindsay	Barbour, A. D. ...	Toronto
Agnew, E. A. ...	Toronto	Barley, E. B. ...	Toronto
Allward, H. L. ...	Toronto	Baxter, L. H. ...	Hamilton
Almond, J. R. ...	Toronto	Baxter, W. J. F.,	Niagara Falls
Archibald, T. A. ...	Woodstock	Bayley, C. H.,	
Armstrong, G. E. ...	Warkworth		Bridgetown, Barbados

Name	Home Address	Name	Home Address
Beaman, A. E. . . .	North Gower	Findlater, I. R. . . .	Ayr
Beament, T. G. B. . . .	Ottawa	Firth, H. E. . . .	Orangeville
Beattie, J.	Galt	Forward, F. A. . . .	Ottawa
Becker, W. A. . . .	St. Thomas	Gilmore, L. E. . . .	Toronto
Beecroft, G. W. . . .	Toronto	Goldstein, A. . . .	Toronto
Bell, W. T. A.	Hensall	Good, E. F.	Blair
Berner, G. T.	Toronto	Gordon, R. A. . . .	Wallaceburg
Best, G. C.	Brussels	Grabill, D. L. . . .	Toronto
Boswell, F. B. . . .	Toronto	Graham, H. F. . . .	Owen Sound
Boyes, J. W.	Hamilton	Greenwood, A. H. . .	Palmerston
Browne, L. M. . . .	Toronto	Greey, S. M.	Toronto
Brittain, C. L. . . .	Toronto	Grenzebach, S. L. .	Woodstock
Buck, L. G.	Brantford	Griesbach, R. J. . .	Collingwood
Burbank, J. D. . . .	Toronto	Griffin, K.	Toronto
Campbell, A. G. . . .	Toronto	Hall, J. L.	Bridgewater
Campbell, L. D. . . .	King	Hamilton, F. W. . . .	Hamilton
Campbell, W. H. . . .	Toronto	Hammond, H. J. . . .	Toronto
Capel, A. J.	Collingwood	Hardcastle, S.	Toronto
Carswell, W. E. . . .	Toronto	Harman, W. J.	Zephyr
Catto, C. E.	York Mills	Hawkins, R. M.	Exeter
Chadwick, A. R. . . .	Toronto	Hendershot, P. W. . .	Kingsville
Chambers, H. J. A. . .	Toronto	Henderson, G. G. . . .	Toronto
Christman, C. W. . . .	Windsor	Heyland, K. V. . . .	Toronto
Chowen, W. R.	Clinton	Hill, A. J.	Toronto
Chute, G. M.	Toronto	Hoggans, H. H.	Toronto
Clark, H. S.	Toronto	Hornell, D. R.	Toronto
Clark, W. H. D. . . .	Toronto	Horning, A. G.	Toronto
Coleman, E. M. . . .	North Bay	Ings, J. H.	Toronto
Colman, A. R.	Toronto	Jackson, L. C.	Brussels
Collison, L. S. . . .	Leamington	Jackson, T. W.	Toronto
Connors, W. M.	Smith's Falls	Keefer, R. H.	Toronto
Connolly, H. J.	Toronto	Keith, W. H.	Newmarket
Cooper, W. C.	Clinton	Kellough, J. Y. . . .	Almonte
Cowan, W. R.	Toronto	Kerr, R. B.	Brantford
Crossgrove, G. M. . . .	Copper Cliff	Kerr, R. S.	Toronto
Davidson, P. C.	Toronto	Kilmer, G. E.	Southampton
Davis, C. R.	Welland	Kingsmill, C. G. . . .	Ottawa
Davis, F. R. J., Valleyfield, Nfld.		Kingston, T. M. S. . .	Toronto
Deacon, P. A.	Toronto	Laine, D.	Toronto
Dean, G. F.	Toronto	Langton, J. M.	Toronto
Dill, R. H.	Nelson, B.C.	Laurie, R. M.	Hamilton
Dillane, C. W.	Kemptville	Lawrence, R.	Toronto
Doherty, A. H.	Meaford	Lawson, A. W. P. . . .	Leaside
Dow, J. A.	Toronto	Lavender, F. J.	Dundas
Drummond, C. H. . . .	Toronto	Learoyd, E. S.	Scarboro
Drummond, J. M. E. . .	Toronto	Lindsay, T.	Toronto
Dymond, J. M.	Toronto	Littlejohn, E.	Toronto
Elder, J. G.	Toronto	Lowry, E. F.	Brussels
Elliot, W. F.	Mitchell	McCulloch, H. L. . . .	Galt
Elliott, W. K.	St. Thomas	McDowell, W. O. . . .	Toronto
Emerson, T. R.	Toronto	McIntosh, D. N.	Simcoe
Enushevsky, M. I. . . .	Toronto	McIntosh, H. A., Winnipeg, Man.	
Erwin, R. B.	Waterford	McKillop, V. A. . . .	West Lorne

Name	Home Address	Name	Home Address
McPhail, A. L.	Galt	Shields, S.	Fort William
MacQuarrie, E. M.,		Simpson, W. L.	Elmvalle
	Sault Ste. Marie	Sirrs, R. R.	
MacQuarrie, J. D.	Harrow	Sitzer, I. K.	Milton
McVicker, P.	Toronto	Smart, G. W.	Toronto
Mason, H. R.	Toronto	Smith, W. M.	Saskatoon, Sask.
Matson, B. C.	Toronto	Smith, V. G.	Toronto
Maus, J. H.	Paris	Smyth, A. R.	Toronto
Miller, W. H.	Galt	Sneyd, C. S.	Preston
Mitchell, J. H.	Toronto	Sorby, W. O.	Guelph
Moffat, B. F.	Weston	Stoll, W. H.	Nottawa
Morrish, J. S.	Highland Creek	Stuart, A. F.	Ottawa
Mueller, E. K.	Hamilton	Switzer, R. H.	Toronto
Muirhead, S. R.	Regina, Sask.	Sykes, A. R.	Ottawa
Norman, R. M.	Galt	Take, P. H.	Orangeville
Norman, R. E.	Toronto	Taniyama, S.	Japan
Osbourne, W. A.	Ireland	Taylor, J. C.	Toronto
Patience, A. M.	Toronto	Thomson, G. A.	Agincourt
Pedder, J. F.	Trout Creek	Thomson, Gladstone A.,	Toronto
Petry, H. H.	Port Hope	Thomson, J. M.,	St. Catharines
Pike, J. G.	Todmorden	Tominsky, W. H.	Toronto
Piper, R. L.	Calagry, Alta.	Turner, H. E.	Brantford
Pugsley, H. J.	Kitchener	Voaden, G. H.	St. Thomas
Ratcliffe, L. C.	Oshawa	Wales, C. C.	Toronto
Rattle, C. H.	Milliken	Waite, G. G.	Colborne
Reid, W. J. W.	Cardale	Walton, W. R.	Toronto
Robinson, F. H.	Toronto	Watson, W. W.	Port Hope
Robertson, G. H.	Toronto	White, W. A.	Toronto
Rowat, G. H.	Toronto	Wilford, J. R.	Lindsay
Rowland, S. A.	Mount Albert	Willard, M. V.	Toronto
Rumble, G.	Hillsdale	Williamson, J. A.	Toronto
Russell, N. E.	Toronto	Wilson, F. E.	Toronto
Russell, W. J.	Unionville	Woodburn, C.	Toronto
Samuel, N. M.	Toronto	Yates, W. S.	Goldenburgh
Saunders, T. D.	Toronto	Yeats, F. B.	Stirling
Shibley, L. K.	Haileybury	Young, C. M.	Toronto
Sharpe, C. T.	Toronto	Zadnoff, M.	Toronto

Third Year

Abernethy, W. W.	Beeton	Beger, A. R.	New Hamburg
Acres, W. P.	Toronto	Begg, E. M.	Toronto
Albertson, R. G.	Niagara Falls	Bell, A. A.	Toronto
Anderson, E. B.	Lindsay	Bell, H. B.	Georgetown
Baird, E. L.	Toronto	Bennett, W. E.	Ottawa
Baird, E. M.	Scarboro P.O.	Blackburn, R. G.	Regina, Sask.
Baird, H. P.	Toronto	Boake, V. E.	Toronto
Ball, F. C.	London	Bonham, L. J.	Dutton
Bateman, J. W.	Peterborough	Booz, F. B.	Toronto
Baumann, P.	Zurich, Swit.	Bowyer, C. M.	Simcoe
Beckett, R. W.	Hamilton	Boyd, O. H.	Toronto
Bedford, H. F.	Toronto	Boyle, G. E.	Pt. Colborne
Bedford, P. S.	Toronto	Breuls, C. P.	Belhaven

Name	Home Address	Name	Home Address
Brown, F. B.	Toronto	Fairbairn, R. A.	Toronto
Brown, R. J.	Acton	Fardoe, H. R.	Brandon, Man.
Browne, J. H.	Kirkland Lake	Faris, E. M.	Aurora
Bruce, V. N.	Toronto	Farley, J.	Toronto
Buchan, J. E.	Sarnia	Farncomb, H. F.	Trenton
Bull, W. J.	Weston	Fawcett, W. W.	Hamill's Pt.
Bunting, W. R., St. Catharines		Farrier, W. G.	Markham
Burke, J. P.	Ottawa	Fiddes, G. H.	Elmwood
Butler, F. J.	Toronto	Finley, R. A.	Meaford
Butter, R.	Ancaster	FitzGerald, A. M.	Lakefield
Button, E. W.	Galt	Forster, I. H.	Toronto
Byram, A. T.	Toronto	Franks, S. T.	Regina, Sask.
Cain, L. A.	Toronto	Fraser, J. M.	Aurora
Campbell, L. S.	Toronto	French, H. E.	Midland
Campbell, T. L.	Elmvale	Galbraith, R. A. H.	Toronto
Carew, A. W.	Lindsay	Gardner, L. S.	Windsor
Carley, F. C.	Consecon	Garrow, K. A. C.	Chesterville
Carnahan, E. H., Campbellford		Gillmor, T.	North Bay
Carr, W. H.	Barrie	Gillmor, J.	North Bay
Carruthers, V. H. H., Foremost, Alta.		Goldie, J. E.	Toronto
Carson, C. T.	Oakville	Graham, H. F.	Brampton
Carson, R. W.	Toronto	Grant, N. S.	Stratford
Catto, D. E.	Toronto	Gray, A. S.	Toronto
Chadwick, N. B.	Toronto	Gray, K. C.	Coldwater
Chambers, A. J.	Toronto	Grey, D.	Trail, B.C.
Chambers, F. W., Hamiota, Man.		Guenther, W. F.	Brantford
Church, J. A.	Toronto	Hall, Miss J. M.	Toronto
Churchill, T. C. D.	Toronto	Hamilton, K. C.	Galt
Clappison, H. G.	Hamilton	Hanning, J. R.	Preston
Cockshutt, C. F.	Brantford	Haq, Isamul, Bhopal State, India	
Cohoe, J. E.	Welland	Harrison, J. A. Dartmouth, N.S.	
Colter, J. L.	Petrolia	Harston, J. C.	Toronto
Conklin, A. N.	Toronto	Hawkins, W. J. H.	Islington
Coulter, H. J.	Windsor	Hayman, H. L.	London
Cowan, E.	Port Arthur	Hayward, A. E.	Toronto
Crawford, A. S.	Hamilton	Hewgill, R.	Toronto
Crowe, G. F.	Truro, N.S.	Higbee, J. C.	Toronto
Crowe, G. K.	Guelph	Hitchon, L. E.	Brantford
Drummond, P. R.	Toronto	Hueston, R. M.	Ingersoll
Duffill, W. H.	Toronto	Huggins, F. W.	Toronto
Dumbrille, J. C.	Kemptville	Ickler, C. H.	Chesley
Dunbar, W. R.	Ethel	Ingersoll, L. H.	Woodstock
Duncan, G. G.	Toronto	Inglis, J. G.	Atwood
Dunlop, E. C.	Tyvan, Sask.	Ironside, J. G.	Simcoe
Dunlop, P. J.	Pembroke	Irwin, K. W.	Oshawa
Dyer, J. W.	Goderich	Jackson, C. H.	Toronto
Edwards, P. S.	Buffalo, N.Y.	Jackson, W. C.	Port Perry
Elloitt, F. W.	Ingersoll	Jaques, C. A.	Woodstock
Ellis, F. A.	Toronto	Jennings, W. B.	Sarnia
Evans, G. F.	Bradford	Jewett, W. D.	Toronto
Evans, M. G.	Toronto	Johnson, J. L.	Arthur
Everson, S. F.	Oshawa	Johnson, N. F.	Aurora
Ewing, C. W.	Toronto	Johnston, A. M., St. Catharines	

Name	Home Address	Name	Home Address
Johnston, D.	Guelph	McQueen, A. W. F.	Nottawa
Johnston, J. W.	Uxbridge	Macquene, C. B.	Toronto
Johnston, O. D., Billings' Bridge		McQueen, M. V.	Toronto
Joy, C. B.	Toronto	Macklin, W. H.	Milliken
Kay, G. F.	Toronto	Maedel, H. C.	Norwich
Keenleyside, H. B.	London	Magee, J. G.	London
Kelly, F. R.	Lindsay	Maguire, W. S.	Toronto
Kelly, M. C.	Hamilton	Martyn, E. R.	Ripley
Kennedy, H. L.	Toronto	Meikle, M.	Midland
Kennedy, W. M.	Toronto	Menendez, C. G.	Toronto
Kenney, W. E.	Pt. Maitland	Meredith, H. J., Vancouver, B.C.	
Kent, W. H.	Hamilton	Miller, W. L.	Lawrence Sta.
Kesteven-Balshaw, H.	Toronto	Mills, C. A.	Orangeville
Kinsman, D. A.	Toronto	Monkman, F. C.	Brampton
Kischel, G. H.	Toronto	Moon, G. D.	Port Hope
Kramer, H. O.	Humberstone	Morris, H. M.	Petrolea
Langford, G. B.	Calgary, Alta.	Morris, R. V.	Toronto
Langlois, W. L.	Toronto	Morrison, R. G. K.,	
Lappin, W. D.	Toronto	Edmonton, Alta.	
Lawton, F. L.	Cookstown	Morwick, E. I.	Jerseyville
Leslie, R. C.	Swansea	Moss, F. W.	Toronto
Lewis, C. E.	Toronto	Murphy, A. S. F.	Wardsville
Lindsay, G. E.	Toronto	Murphy, C. J.	London
Logan, H. J.	Dunnville	Murray, A., Costa Rica,	
Longworthy, W. O.,		Cent. Am.	
Regina, Sask.		Murray, J. R.	Toronto
Low, R. St. C.	Toronto	Mutch, G. C.	Toronto
Lucas, C. H.	Toronto	Nablo, H. W.	Cayuga
Lyle, F. J.	Brantford	Nahrgang, A. R., New Hamburg	
Lyle, V. B.	Peterborough	Nattress, D. I., Sault Ste. Marie	
Lyons, R. T.	Toronto	Nettleton, C. A.	Toronto
McAllister, D. G.	Toronto	Norris, C. A.	Toronto
McBride, E. W.	Toronto	Oldford, R., Musgrave Town,	
McBroom, H. E.	Toronto	Nfld.	
McBurney, W. G., Niagara Falls		Oliver, C. W.	Belton
McCabe, R. H.	Tottenham	Paget, J. A.	Huntsville
McClellan, G. E.,		Park, R.	Hamilton
Vancouver, B.C.		Parrett, A. E. J.	Toronto
McCrae, G. W.	Lindsay	Parrett, R. E.	Toronto
MacDougall, H. A.	Toronto	Plewes, R. V.	London
McIntosh, J. H., Victoria, B.C.		Potvin, L. J.	Ottawa
McIntyre, V. H.	Toronto	Porter, W. J.	Powassan
McIntyre, H. A.	Toronto	Powis, A.	Hamilton
McKay, H. A.	Seaforth	Price, A. V.	Toronto
MacKendrick, J. N.	Galt	Price, L. M.	St. Thomas
McKenzie, H. B.	Toronto	Pritchard, H. S.	Toronto
MacLellan, J.	Claremont	Purvis, W. F.	Toronto
McLelland, W. J.	Hamilton	Ratz, H. W.	New Hamburg
McMahon, T. J.	West Lorne	Reid, A. M.	Toronto
McManus, H. W.	Maitland	Relyea, R. C.	Cornwall
McMaster, J. A.	Toronto	Reynolds, J. H.	Toronto
McMillan, R. J.	Stratford	Robertson, H. F.	Brantford
McMullen, A. W.	Toronto	Robson, W. T.	Toronto
McMurrich, J. R.	Toronto	Rolph, E. G.	Toronto

Name	Home Address	Name	Home Address
Romm, N.	Toronto	Story, R. A.	Claremont
Rose, A. A.	Ailsa Craig	Stott, F. W.	St. Thomas
Rose, H. G.	Ottawa	Strudley, D. B.	Stratford
Ross, D. M. M.	Toronto	Thorpe, G. M.	Toronto
Rossiter, R. E., Sault Ste. Marie		Timmins, W. W.	Toronto
Ruby, E. A.	Kitchener	Tofflemire, R. H.	Windsor
Rundle, W. L.	Dundalk	Tomlinson, F. C.	Langstaff
Sanders, F. W.	Stouffville	Turner, J. W.	Craighurst
Schinbein, E. E.	Conestogo	Upper, F. A.	Niagara Falls
Schultz, F. H.	Brantford	Veals, R. C.	Toronto
Scott, G. D.	Claremont	Vernon, A.	Toronto
Seaborne, F. S.	Toronto	Wade, C. A. G.	Grimsby
Seeli, E. S. S.	Lucan	Walker, S. W.	Toronto
Shaffer, B.	Ft. William	Walker, W. H.	Stratford
Sharp, R. A.	Sudbury	Walks, J. D.	Chesley
Siddall, K. C.	Islington	Ward, N. F.	Hamilton
Simson, F. T.	Toronto	Warren, A. R.	Hespeler
Smith, G. W.	Toronto	Wells, C. M.	Toronto
Smith, J. M.	Durham	West, G. R.	Northwood
Smye, G. R.	Galt	White, M. R.	Toronto
Snow, R. B. L., Juddhaven P.O.		Whiteside, J. J., Little Britain	
Snyder, A. L.	Toronto	Wilford, H. D.	Lindsay
Sproatt, C. B.	Toronto	Wilkinson, G. I.	Wallenstein
Stevens, E. C.	Toronto	Williams, B. I.	London
Stevenson, H. J.	Toronto	Wingfield, H. E.	Dunnville
Stewart, H. E.	Toronto	Wolsey, M.	Toronto
Stewart, W. D.	Toronto	Wright, W. E., Cadogan, Alta	
Stokes, L. F.	Sombra		

Fourth Year

Ahara, E. V.	Toronto	Clarke, T.	Toronto
Anderson, A. M.	Toronto	Cockerline, E. W.	Toronto
Archibald, S. W.	Seaforth	Coles, F. B.	Brantford
Armstrong, E. F.	Iroquois	Coo, C. W. H.	Toronto
Ashcroft, C. C.	York Mills	Cook, R. H. B.	Aurora
Aykroyd, G. C.	Toronto	Coulter, S. L.	Windsor
Benson, W. R.	Toronto	Crawford, J. J.	Toronto
Bishop, W. V.	Kimberley	Day, G. A.	Guelph
Bongard, G. R.	Toronto	Dignam, H. M.	Toronto
Briethaupt, C. L.	Kitchener	Dilworth, H. M.	Toronto
Brickendon, W. T.	Toronto	Dougall, C. H.	Oakville
Brown, E. L.	Toronto	Doran, J. Y.	Toronto
Broughall, G. M.	Toronto	Drybrough, J.	Sudbury
Bryant, G. F.	Toronto	Dunbar, P. G.	St. Thomas
Burns, D.	Fullerton	Duncan, W. C. C.	Toronto
Bysshe, H. A., Springfield, Vt.		Elliott, W. B.	St. Catharines
Campbell, W. A.	Toronto	Evans, M. M.	Bradford
Carruthers, K. L.	Toronto	Everest, T. E.	Toronto
Carslake, C. H.	Toronto	Fair, A. E.	Midland
Chantler, H. M.	Toronto	Fenwick, J. R.	Toronto
Chater, W. N.	Toronto	Fitzgerald, W. W.	Toronto
Clairmont, W. L.	Gravenhurst	Foley, W. J.	Ottawa
Clarke, A. R.	Toronto	Fotheringham, D. T.	Toronto

Name	Home Address	Name	Home Address
Fry, C. N.	Chesley	Mummery, C. R.	Hamilton
Fully, G. B.	Arkona	Mueller, H. H.	Toronto
Gibbs, J. W. S.	Toronto	Murphy, A. R.	Wardsville
Glover, T. S.	England	Nash, A. L. S.	Dunnville
Goodwin, J. E.	Toronto	Norcross, M. A.,	
Grant, W. J.	Toronto		Lennoxville, Que.
Graves, H. P.	London	Noxon, K. F.	Toronto
Gray, F. M.	Toronto	Oaks, H. A.	Preston
Greig, A. K.	Toronto	Parker, R. R.	Stirling
Guscott, A. G.	Toronto	Parker, R. E.	Tavistock
Haldenby, C. N.	Toronto	Paul, R. J.	Sunderland
Hamilton, C.	Toronto	Pearce, W. R.	Toronto
Harlow, G. H.	Toronto	Pearen, C. B.	Toronto
Hayman, H. G.	Toronto	Perry, J. C.	Uxbridge
Heatley, A. H.	Brampton	Philip, E. B.	Islington
Heisey, K. B.	Markham	Philp, H. J.	Nestleton
Helliwell, A. L.	Toronto	Pollock, F. J.	Almonte
Helme, J. B.	Smith's Falls	Powell, H. R.	Grenfell, Sask.
Henry, R. J.	Grimsby	Powell, M. V.	Peterborough
Henry, S. W.	Stratford	Pratt, D. L.	Midland
Houston, F. C. A.	Toronto	Ramsay, W. B., Lumsden, Sask.	
Howden, H. E.	Caledonia	Richardson, W. R.	Essex
Hume, A. G.	Toronto	Ridout, G. S.	Montreal, Que.
Johnson, A.	Orillia	Robertson, W. G.	Palmerston
Johnston, B. H.	Toronto	Robinson, L. J.	Toronto
Kay, J. A. C.	Stratford	Rosebrugh, D. W.	Toronto
Kerr, H. H.	Seaforth	Ross, M. D.	Chatham
Kirkconnell, J. R.	Lindsay	Ruddy, T. F.	Brantford
Langofrd, J. A.	Calgary, Alta.	Sanderson, A. C.	Toronto
La Londe, H. J.	Toronto	Scadding, S. C.	Humber Bay
Lawson, H. H.	Toronto	Schemnitz, D. A.	Toronto
Lidkea, H. J.	North Bay	Sherk, W. S.	Sherkston
Lindsay, A.	Dover Centre	Shockley, H. M.,	
Little, A. M.	Toronto		Prince Rupert, B.C.
MacAllister, J. S. E.	Toronto	Shéppart, A. C. T.	Ottawa
McClintock, G. A.,		Smillie, S. S.	Toronto
	St. Andrew's E., Que.	Spence, F. S.	Toronto
McGrath, R. J.	Toronto	Spotton, J. G.	Guelph
McHaffie, R. P.	Avonlea, Sask.	Stewart, M. D.	Montreal, Que.
McKeown, C. J. W., Mono Road		Stewart, V.	Milestone, Sask.
McLaughlin, R. R.	Toronto	Stratford, A. H.	Toronto
McLean, G. E.	Thornbury	Stuart, G. L.	Toronto
McMurtry, L. C.	London	Thomlinson, J. F.	Toronto
McNiven, J. G.	Acton	Thompson, H. G.	Belmont
Mackie, W. P.	Toronto	Thompson, R. J.	Toronto
Mallett, G. S.	Toronto	Wass, F. L.	St. Marys
Mayberry, J. S.	Stratford	Weldon, H. S.	Oakwood
Mellish, A. H.	Brantford	West, J. A.	Simcoe
Meyer, H. B.	Brantford	Westren, J. H.	Toronto
Miller, B. H.	Stouffville	White, R. E.	Ottawa
Milne, J. W.	Toronto	Williams, R. H.	Burlington
Montemurro, M. M., North Bay		Williams, S.	Toronto
Moer, H. H.	Toronto	Williamson, R. J.	Toronto

Name	Home Address	Name	Home Address
Winter, L. A. G.	Toronto	Yack, W. L.	Walkerton
Woelfle, E. J.	Chesley	Zealand, E. L.	Hamilton
Wynne-Roberts, R. I. .	Toronto		

Graduate Students

Bell, J. C.	Toronto	Logan, I. M. ..	Niagara Falls
Downey, F. P. ..	Northwood	Rolph, E. A. . .	Toronto
Fawcett, T. C.	Gravenhurst	Thompson, W. K.	Toronto
Hannan, B. T. ...	Toronto	Whelen, M. P.	Toronto
Hughes, C. A. ...	Mimico Beach	Wyllie, W. J. E.,	Kamloops, B.C.

Summary

First Year	174
Second Year	193
Third Year	290
Fourth Year	154
Graduate Students	10
Total	821

ONTARIO COLLEGE OF EDUCATION

Courses for Ordinary High School and Specialists' Certificates

Name	Home Address	Name	Home Address
Allan, Miss L. M.	Kingston	Gillespie, J.	Seaforth
Balfour, Miss I. K.	Toronto	Glazier, Miss E. A. E.,	Brockville
Bates, D. W.	Dundas	Gray, B.	Komoka
Beasley, Miss J. E.	Sandwich	Greene, Miss M. E.	Toronto
Beaupre, Miss C. M.,	Niagara Falls, N.Y.	Greenwood, Miss J. E.,	Toronto
Blathwayt, F. W.	Guelph	Guenther, J. F.	Hamilton
Booth, C. W.	Warkworth	Handford, Miss L.	Renfrew
Bracken, Mrs. F. M.	Athens	Harman, W.	Zephyr
Brodie, Miss J. B.	Toronto	Harvey, Miss M. I.,	Peterboro
Brown, Miss D. L.	Ottawa	Hay, Miss W.	Campbellford
Brown, F. L.	Melbourne	Hermiston, Miss R.	Cornwall
Bryans, Miss H. L.	Toronto	Hicks, Miss R. C.	London
Bryce, W. A.	Toronto	Hillerud, S. O.,	Claresholm,
Buchanan, G.	Brussels		Alta.
Burnett, Miss E. M.	Ottawa	Hounsom, Miss C. E.	Toronto
Butcher, Miss E. M.	Toronto	Kelley, Miss I. M.	Ottawa
Campbell, H. J.	St. Catharines	Kenny, Miss M. B.,	Owen Sound
Campbell, R. D.	Ormond	Kerr, W. B.	Seaforth
Charron, C.	Rockland	Kirk, Miss H. T.	Woodstock
Clendenning, Miss B. E.,	Brandon, Man.	Knapp, F. D.	Kingston
Cliff, Miss M. T.	Portsmouth	Lapensee, J. E.	Plantagenet
Cole, Miss F. I.	Ottawa	Leckie, Miss E. H.	Stratford
Connell, Miss M. I.	Lucknow	Leggett, Miss E. G.	Newboro
Connolly, Miss M. A.	Toronto	Lemieux, H.	Curran
Cornette, Miss C. L.	Dundalk	Livingstone, Miss L. W.	Maynooth
Cowan, Miss K. S.	Seaforth	Macaulay, Miss K. M.,	Frankford
Craig, H. A.	Smith's Falls	MacInnes, E. D.,	Southampton
Creery, Miss I. V.	Woodham	Mackey, Miss M. I.,	Thornbury
Croal, A. G.	Hamilton	MacPhail, Miss M. C.	Russell
Dafoe, Miss E. C.	Madoc	Marshall, G. E.	Washago
Daley, Miss M. T.	Toronto	Martin, Miss C. J.	Rosemont
Dewey, Miss H. J.,	St. Mary's	Martin, J. J.	Milton
Dickinson, Miss M. A.,	Toronto	Maxwell, Miss H. M.,	St. Mary's
Elder, R. C.	Canfield	McArthur, C. P.	Martintown
Elliott, H. J.	Toronto	McClelland, Miss M. D.,	Kingston
Elliott, Miss M. L.	Norwood	McGregor, Miss L. N.,	Waterdown
Elliott, Miss N. E.	Belleville	McGregor, Miss M. R.,	Chatham
Ewart, Miss J. E.	Petrolia	McKerracher, L. G.	Fallbrook
Farmer, G. W.	Perth	Meng, L. H.	Napanee
Ferguson, Miss R. M.,	Conquest, Sask.	Meredith, Miss G. M.,	Peterboro
Findlay, Miss H.,	Carleton Place	Meyer, J. B.	Peterboro
Forman, J. H.	Woodville	Moore, Miss S.	Belmont
Fox, Miss E. G.	Cainsville		
Gardiner, Miss G.	Toronto		

Name	Home Address	Name	Home Address
Morrison, N. F.	Corunna	Scott, Mrs. E. E. S.,	St. Catharines
Moses, Miss T.	Ottawa	Scott, Miss E. R.	Toronto
Mullett, Miss H. F.,	Carleton Place	Scrimgeour, Miss G.,	Stratford
Mustard, Miss M. I.	Uxbridge	Shannette, E. L.	Williamsburg
Nelson, Miss M. E.,	Vankleek Hill	Shaw, Miss E. L. L.	Arnprior
Niece, H. P.	Kitchener	Simpson, Miss J. I.	Toronto
Noble, W. G.	Leamington	Smillie, B. S.	Toronto
Noseworthy, J. W.	Toronto	Smith, Miss J. H.	Alliston
Odell, Miss J. G.	Cobourg	Smith, Miss L. R.	Kendal
Orr, W. H.	Toronto	Smith, Miss M. L.	Milbrook
Overend, J.	Toronto	Smith, W. C.	Woodville
Petrie, P. A.	Brucefield	Snell, Miss M. E.	Seaforth
Phillips, C. E.	Toronto	Stapleford, Miss L. M.,	Toronto
Powell, C. E.	Lucan	Steinberg, A. G.	Brinston
Powers, Miss M. H. R.,	Beamsville	Stevenson, A. B.	Coldwater
Rae, Miss J.	Toronto	Stewart, Mrs. B. K.	Toronto
Redmond, Miss F. L.,	Peterboro	Storey, W. J.	Toronto
Redmond, Miss M. I.,	Kingston	Sutherland, Miss I. E.	Toronto
Rentner, L. W.	Collingwood	Tilden, Miss C. K.	Lambeth
Robinson, Miss C. E.,	Kleinburg	Troy, M. L.	Chatham, N.B.
Rodman, Miss F. E.	Toronto	Uren, Miss M. F.	Toronto
Rowntree, Miss W. M.	London	Wert, Miss A. G.	Avonmore
Russell, Miss E. E.	Delta	Wert, Miss D.	Wales
Russell, Miss M. E.	Fergus	West, J. B.	Toronto
Ryan, Miss E. M.	Oakville	Williams, Miss E. M.	Toronto
Ryan, M. W.	Peterboro	Wilton, Miss H. I.	Kingston
Scarrow, Miss A. V.	Toronto	Wylie, Miss J. M. C.	Blenheim
Scarrow, C. E.	Creemore	York, Miss J. E.	Toronto
		Young, Miss C. T.,	Kentville, N.S.

Courses for Specialists' Certificates Only

Adams, Miss A. M.	Peterboro	Keeling, W. L.	Toronto
Archibald, A.	Seaforth	Lalande, Miss M. B.,	Cobourg
Black, Miss L. G.	Rockwood	Lee, Miss G. M.	Kemptville
Brackenbury, G. L.	Wingham	Maitland, Miss M.	Elora
Bullock, V. E.	Orono	Marr, R. B.	Dorchester
Chrysler, H. W.	Brantford	Maxwell, Miss M. I.,	Sault Ste. Marie
Clarke, H. V.	Belleville	Millar, Miss K. M.	Toronto
Clarke, Miss M. E.,	Palmerston	Moore, Miss G.	Peterboro
Cole, Miss G. M.	London	Morris, F.	Peterboro
Cummiford, L.	Windsor	Muir, P.	Glenannan
Dalton, E. W.	Walsingham	Munro, Miss M. K.	Dunnville
Eby, Miss E. L.	Kitchener	Nethercott, J. P. S.	Toronto
Ellis, G. E.	Ottawa	Oaten, Miss B. E.	Toronto
Fasken, S. A.	Kippen	Oatway, G. A.	Perth
Glass, Miss E. M. K.,	Toronto	Reynolds, N. W.	Toronto
Grant, Miss L.	Caledonia	Robinson, Miss A. F.	Markham
Halliday, Miss F. F.	Toronto	Runnings, J. B. C.	Kingston
Howitt, Miss M.	Waterloo	Scott, Miss R. V.	Beamsville
Jamieson, H. W.	Guelph		

Name	Home Address	Name	Home Address
Smith, D. G.	St. Thomas	Wallace, A.	Oshawa
Taylor, Miss A. M.,	Port Credit	Wilson, J. S.	Trenton
Turville, Miss A. D.	London		

Course for Ordinary Certificate in Household Science

Allen, Miss L. E.	Hamilton	Little, Miss S. J.	Toronto
Armstrong, Miss M. E.,	Palmerston	Malcolmson, Miss J. E.,	St. Catharines
Bannatyne, Miss M. J.,	Estevan, Sask.	McIntosh, Miss E. R.,	Vankleek Hill
Cleland, Miss M. O.	Perth	Noble, Miss Z. M.,	Oxbow, Sask.
Cook, Miss E. M.	Toronto	Pack, Miss M. O.	London
Howarth, Miss M. W.,	St. Thomas	Smith, Miss D. E.	Lindsay
		Weir, Miss J. A.,	Hall's Bridge

Bachelor of Pedagogy Course.

Anderson, F. H.	Roland, Man.	Lock, E. H.,	New Westminster, B.C.
Buchanan, Miss F. M.,	Calgary, Alta.	McDonald, G.	Regina, Sask.
Buchanan, F. G.,	Calgary, Alta.	McFadden, R. W. E.,	Brantford
Buchanan, Geo.	Brussels	McIntyre, A. J.	Lucky Lake, Sask.
Carlton, W. H.	Toronto	Nethercott, J. P. S.	Toronto
Douglas, A. C.	Lucan	Newland, H. C.,	Edmonton, Alta.
Ferguson, J. G.,	Empress, Alta.	Ray, V. A.	Toronto
Firth, T.	Lindsay	Smith, Miss J. F. L.	Ottawa
Fitch, J. H.	Truro, N.S.	Stewart, Robt.,	Port Credit, Ont.
Fuller, E. L.,	Wainwright, Alta.	Tench, G. R.	Tokyo, Japan
Hardy, J. H.	Perth	Walker, A. J.	London
Kelly, W. J.	Edmonton, Alta.	Ward, E. M. H.	Toronto

Doctor of Pedagogy Course.

Aitken, W. E. M.	Toronto	Brokenshire, M. C.	Toronto
Argue, Miss L.	Ottawa	Brooks, A. J.	Sussex, N.B.
Armstrong, T.	Toronto	Brown, G. A.,	Prince Albert, Sask.
Armstrong, W. E.,	Weyburn, Sask.	Caldwell, A.	Cornwall
Ashall, Miss F. M.	Toronto	Campbell, A. L.	Weston
Axford, B. W.	Toronto	Campbell, J. D.	Ottawa
Bannister, J. A.	North Bay	Carlisle, J. O.	Toronto
Barnes, C. L.	Toronto	Charles, F.	Toronto
Bell, R. L.	Toronto	Clarke, T. E.	London
Benson, J. E.	Windsor	Clifford, Miss M.	Woodstock
Bowers, H.	Port Hope	Cline, G. A.	Toronto
Braithwaite, G. E.	Toronto	Cornish, G. A.	Toronto
Bramfitt, G. N.	Toronto	Cowles, J. P.	Toronto

Name	Home Address	Name	Home Address
Daniels, P.	Hamilton	Melady, T. S.	Stratford
Daviss, A. E.	Madoc	Menzies, L. P.	Toronto
Doan, A. W. R.	Toronto	Miller, H. M.	Exeter
Edward, W. G.	Toronto	Mills, J. S.	Saskatoon, Sask.
Evans, G. E.	Port Hope	Misener, G. D.	Edmonton, Alta.
Ewing, C. M.	Toronto	Mitchener, J. L.	Cayuga
Finlayson, D. K.	Grand River, N.S.	Moir, J. H.	E. Kildonan, Man.
Firth, J. W.	Toronto	Mulloy, G. W.	Aurora
Fitch, Miss M.	Toronto	Munro, P. F.	Toronto
Froats, J.	Finch	Murch, N. L.	Toronto
Gardiner, A. B.	Newmarket	Nethercott, J. P. S.	Toronto
Goldring, C. C.	Toronto	Nivins, C.	Prince Albert, Sask.
Goldstick, I.	London	Ockley, Miss L. L.	Toronto
Grainger, H. A.	Toronto	Ogilvie, A. I.	Fort William
Grant, Miss C.	Toronto	O'Reilly, J. B.	Toronto
Gray, J. E.	Toronto	Patterson, A. M.	Toronto
Green, W. H. H.	Sudbury	Perry, S. W.	Toronto
Halbert, E. J.	Toronto	Poitras, A.	Ottawa
Halbert, H. A.	Toronto	Price, C. F.	Hamilton
Hampson, E.	Toronto	Quance, F. M.	Regina, Sask.
Hansuld, A. F.	Charlottetown, P.E.I.	Quirk, E. L.	Toronto
Harper, C.	Toronto	Radcliffe, S. J.	Toronto
Horwood, R. B.	Toronto	Richardson, R. P.	Craik, Sask.
Hughes, T. J.	Toronto	Ronan, F. T.	Toronto
Hume, W. E.	Toronto	Russell, Miss E. K.	Toronto
Jamieson, Miss J. L.	Toronto	Ryan, Miss A.	Lindsay
Jenkins, R. S.	Colborne	Sabine, E. L.	Sault Ste. Marie
Jennings, W. A.	Toronto	St. Denis, R.	Ottawa
Johnston, Miss E. C.	Toronto	Sanger, M.	Morden, Man.
Jones, C. D.	Hamilton	Saunders, W. J.	Kingston
Jones, G. M.	Toronto	Seaman, A. W.	Westmount, Que.
Jordan, A. A.	Toronto	Seaton, E. T.	Hamilton
Kay, E. W.	Hamilton	Smith, A.	Toronto
Keillor, J.	Toronto	Smith, F. P.	Picton
Kelly, W. F.	Hamilton	Spence, J. C.	Ottawa
Kerfoot, H. W.	Ottawa	Stevenson, W. E.	Balcarres, Sask.
Kerr, M. W.	Hamilton	Stubbs, S. J.	Toronto
King, H. B.	Vancouver, B.C.	Sullivan, B. F.	Toronto
Langford, F. W.	Toronto	Takagi, S. T.	Toronto
Latour, N.	Moose Jaw, Sask.	Tamblyn, W. J.	Toronto
Long, J. A.	Walkerton	Teeter, C. G.	Hamilton
Loughheed, W. J.	Toronto	Thomas, G. H.	Toronto
Macdonald, A.	Peterborough	Thompson, P. M.	Windsor
MacDonald, D. D.	Toronto	Tuck, J. R.	Camrose, Alta.
Martyn, H. G.	Stratford	Tucker, Miss M. C.	Toronto
Matthews, Miss F.	Toronto	VanAlstyne, Miss S. A.	Niagara Falls
McIntosh, H. W.	Toronto	VanEvery, J. F.	Toronto
McKellar, J.	Toronto	Walker, D.	Peterborough
McLellan, J. C.	Toronto	Walmsley, L. C.	Chengtu, China
McLellan, R. F.	Toronto	Welsh, D. J.	Summerland, B.C.
McNaughton, J. L.	Walkerville	White, E. T.	London

Name	Home Address	Name	Home Address
White, L.	Weston	Wilkinson, J. E.	Toronto
Whitelaw, W. M. . .	Hagersville	Williams, W. H.	Toronto

Summary

High School and Specialists' Certificates	142
Specialists' Certificates only	42
Certificates in Household Science	13
Bachelor of Pedagogy	24
Doctor of Pedagogy	132
Total	<u>353</u>

FACULTY OF FORESTRY

First Year

Name	Home Address	Name	Home Address
Acklom, R. de R. D.,	New York, U.S.A.	Myles, B. . .	South Woodslee
Alfsen, J. M.	Toronto	O'Connor, P. A.,	Port of Spain, Trinidad
Archer, C. F. . . .	Kaslo, B.C.	Parsons, H. H. . . .	Toronto
Batt, C. A.	Toronto	Phipps, G. W. . . .	Thornbury
Bedell, G. H. D. . . .	Kingston	Rowe, C. A.	Toronto
French, F. C. S. . . .	Pakesley	Simpson, E. R. . . .	Thornhill
Greenwood, W. B. . .	Oshweken	Spittel, C. E.	Toronto
Jones, E. C.	Toronto	Thomson, G. J.	Mansfield
McCausland, H. L.,	Sutton West	Willson, R. M.	Aurora
McLellan, R. F. . . .	Harriston	Willson, W. E. . . .	Aurora
Mackey, T. E.	Thornbury		

Second Year

Ardenne, M.	Toronto	Laschinger, E. J.,	New Hamburg
Burk, A. H.	Thessalon	MacFarlane, J. D. B.,	Windsor, N.S.
Burrows, T. A.,	Winnipeg, Man.	McKenzie, A. R.,	Brandon, Man.
Fensom, K. G.,	Montreal, Que.	Stewart, J. V. . . .	Toronto
Higgins, W. A. . . .	Toronto	Whitelaw, W. A.,	Edmonton, Alta.
Hosie, R. C.	London		
Kensit, N. M.	Ottawa		
Kingston, G. A. . . .	Ottawa		

Third Year

Brown, J. D.	Brockville	Haddow, W. R.	Toronto
Burford, J. F. M. . . .	Toronto	Jenkins, F. T.	Ottawa
Cosens, G. G.	Toronto	MacDougall, F. A.,	Carleton Pl.
Cram, W. D.	Carleton Place	Walton, J. R.	Toronto
Druce, E.	Winnipeg, Man.	Westland, C. E.	Toronto
Foote, C. E.	Rosseau		

Fourth Year

Commings, M. J.	Toronto	Reid, L. H.	England
Doran, A. B.	Toronto	Sharpe, J. F.	Toronto
Irwin, C. H.	Toronto	Stewart, K. A.	Toronto
Irwin, J. C. W.	Toronto	Thrupp, A. C.,	Kamloops, B.C.
MacDonald, J. H.	Guelph	Turnbull, J. F.	Toronto
Marritt, I. C.	Keswick	VanCamp, J. L.	Toronto
Pepler, W. A. E.	Toronto		

Special Students

Brodie, J. A.	Toronto	Fenwick, A. R.	Toronto
Crosbie, H. W.,	Chatham, N.B.	McCreath, D. O.	Kincardine

Summary

First Year	21
Second Year	13
Third Year	11
Fourth Year ..	13
Special Students	4
Total	62

FACULTY OF MUSIC

First Year

Name	Home Address	Name	Home Address
Becker, Miss H. L.	Toronto	Goodall, R.	Hamilton
Boyce, E.	Port Perry	Johnston, Miss B. C. . .	Toronto
Canty, Miss M. I.,		Macnab, Miss T.	Toronto
	Moose Jaw, Sask.	Macpherson, Mrs. W. E.,	Toronto
Chisholm, Miss R. E.	Oakville	Palmer, H. F.	Toronto
Dexter-McLeod, Miss R.,		Peaker, C. . .	Saskatoon, Sask.
	Toronto	Price, F. P.	Toronto
Fisher, Miss M. I.	Toronto	Shannon, Miss E. J.	Toronto
Gilley, Miss E. R.,		Solway, J. B.	Toronto
	New Westminster, B.C.	Solway, M.	Toronto
Goldhang, D. C.	Toronto	Webbe, W. Y.	Summit, N.J.

Second Year

Benson, Miss V. L.	Toronto	Record, H. J. . . .	Regina, Sask.
Bird, Miss A. C.	Toronto	Reed, E.	Toronto
Curtis, Miss A.	Bronte	Robinson, R. C. .	Belmont, Mass.
Hermon, E. W.	Toronto	White, E. C. . . .	Toronto
Kenny, J. L.	Hamilton		

Third Year

Campbell, Mrs. G. H.	Toronto
Rees, L. P.	Toronto

Occasional Students

Campbell, Mrs. W. N.	Toronto	Legate, Miss S.	Toronto
Crompton, Miss I.	Toronto	McCool, B.	Walkerton
Goodwin, Miss A.	Toronto	Melecci, E.	Toronto
Hawke, H. W.	Toronto	Mould, Miss L. . .	Niagara Falls
Johnson, Miss A.	Toronto	Smith, V. G.	Toronto
Johnston, B. H.	Toronto	Unsworth, N. R.	Toronto
Ketchum, K. G. B.	Toronto	West, H.	Toronto

Summary

First Year	19
Second Year	9
Third Year	2
Occasional Students	14
Total	44

DEPARTMENT OF SOCIAL SERVICE

Full Time Students

First Year

Name	Home Address	Name	Home Address
Anderson, Miss M. P.,	Westneath	McMurray, Mrs. A. E.,	Capetown, South Africa
Bailey, Mrs. M. K.	Toronto	McPherson, Miss C. B.	Toronto
Beaumont, B.	Victoria, B.C.	MacPherson, Miss M. H. I.,	Brookfield, P. E. I.
Breadner, Miss H. F.	Toronto	McTaggart, Miss J.	Hamilton
Bredin, Miss H. J.	Toronto	Malone, W. B.	Toronto
Chamberlain, C. O., St. Thomas		Mayhew, Miss V. P., Huntsville	
Clarke, G. J.	Toronto	Meehan, Miss H. M.	Toronto
Clarke, R. F.	Toronto	Morrow, Miss G. E.	Toronto
Cockburn, Miss E. A.	Toronto	Murray, Miss D. . E.,	Halifax, N.S.
Driscoll, Mrs. J. S.	Toronto	O'Gorman, Miss F. M.	Toronto
Eagleson, Miss G. M.	Toronto	Parks, Miss V. E.	Oshawa
Fennell, Miss B.	Newbury	Payne, Mrs. Cora	Toronto
Gamsby, Miss M. C.	Kingston	Pettit, Mrs. E. P.	Toronto
Gollan, Miss M. E.	Lucknow	Robertson, Miss R.	Toronto
Hale, Miss M. E.	Gananoque	Shortt, Miss M. L.	Ottawa
Harris, Miss A. E.	Pictou, N.S.	Smith, G. B.	Toronto
Hodgins, Miss B.	Toronto	Strathy, Miss M. F.,	Westmount, Qué.
Jessel, Mrs. E.	Toronto	Thomson, Miss L.	Owen Sound
Kennedy, Mrs. L. L.	Toronto	Thomson, Mrs. M. S.,	Hamilton
Kensit, Mrs. M.	Toronto	Whidden, Miss E. S.,	Brandon, Man.
Knight, Miss M. A.,	Portland, Me.	Whyte, Miss O. J.,	Carleton Place
Lesniak, Miss J.	Oshawa	Wilson, Mrs. H. W.	Toronto
Loughrane, L. B.	Toronto	Woodrow, G. E.	Woodstock
Lowrey, Miss M.	Toronto	Wynne-Roberts, Miss B. A.,	Toronto
McCormack, Miss R. E.,	Toronto		
MacIlraith, Miss M. M.,	Durham		
McIlwraith, Miss M. S.,	Hamilton		
MacKenzie, Miss C. E. V.,	Scotsburn, N.S.		

Second Year

Bronstein, Miss J.	Toronto	Scadding, Miss B. H.	Toronto
Chisholm, Miss D. M.,	Oakville	Sommer, F.	Toronto
Doran, Miss J. E.	Toronto	Stretton, Miss S. B.	Toronto
Ryrie, Miss G. M.	Toronto	Wishart, Miss E. T.	Toronto
Sarjeant, Miss M. L. . .	Orillia		

Part Time Students

Abbott, Miss A. F.	Toronto	Aird, Miss W. E.	Toronto
Acheson, Miss A. I.	Hamilton	Aitchison, Miss E. O.,	Harriston
Ainsworth, F.	Hamilton		

Name	Home Address	Name	Home Address
Allen, Miss M. W.	Toronto	Collver, Miss M.	Toronto
Ambler, Miss E.,		Cooke, Miss H.	Toronto
	Penetanguishene	Corbman, Miss E.	Toronto
Amey, Miss E. R.	Odessa	Cornwall, Miss M. M.	Oshawa
Annan, Miss B. K.	Dunbarton	Cousins, Miss G.	Seaforth
Armstrong, Miss A. L.,		Cowan, Miss K. S.	Sarnia
	Thamesford	Coyle, Miss I.	New Lowell
Bailey, Miss V. I.	Stirling	Craik, Miss G. M.	London
Bain, Miss H. M.	Gananoque	Cryderman, Miss E.,	
Baldwin, Mrs. N.	Toronto		Niagara Falls
Barnes, Miss L. H.	Toronto	Cunningham, Miss M. E. V.,	
Barron, Miss A. M.	Toronto		Springdale, Nfld.
Barry, Miss F. I.	Toronto	Davidson, Miss J.	Toronto
Bennett, Miss O. L.,		Dawson, Miss E. C.	Toronto
	Sault Ste. Marie	Dent, Miss J. P.	Woodstock
Benore, Miss M. L.,		De Pencier, Miss M. G.,	
	Campbellford		Toronto
Berry, Miss M.	Seeley's Bay	DesRoches, Miss L.,	
Bickell, Miss J. I.	Galt		Penetanguishene
Blackmore, Miss H. P.	Barrie	Dewey, Miss L. S.	Toronto
Boyce, Miss V. M.	Ottawa	Dillon, Miss L.	Toronto
Braden, Miss O. B.	Calabogie	Docherty, Miss L.	Seaforth
Bright, Mrs. E. L.	Toronto	Douglas, Miss L. L.	Dundas
Bro. Anthony	Toronto	Durbrow, Miss K. M.	Renfrew
Bro. Cyril	Toronto	Dyce, Miss M. C.	Meaford
Brown, Miss A. B.	Toronto	Edwards, Miss C. M.,	Lindsay
Brown, Miss A. R.	Toronto	Elliott, Miss N. E.,	
Brown, Miss E. A.	Stratford		Hong Kong, South China
Brown, Miss L. K.,	Victoria, B.C.	Ellis, Miss M. A.,	Peterborough
Brownlow, Miss E. M.	Toronto	Elliott, Miss F. G. deL.,	
Buck, Miss J. G.	Belleville		Iroquois Falls
Bullick, Miss M. E.	Camlachie	Falconer, Miss J.	Toronto
Burford, Miss M. H.	Toronto	Fawcett, Miss M. E. W.,	Tweed
Caldwell, Miss A.	Toronto	Ferguson, Miss M. P.,	Duntroon
Cale, Miss E. A.	Toronto	Finley, Miss A. M.,	
Cameron, Miss E. K.	Alliston		St. John, N.B.
Cameron, Miss J. R.	Toronto	Fisher, Miss D. M.	Toronto
Campbell, Miss F.	Toronto	Fisher, Miss H. E.	Toronto
Campbell, Miss L.,		FitzGerald, Miss A.,	
	Mitchell River, P.E.I.		Mt. St. Louis
Campbell, Miss M. P.,		Forman, Mrs. N.,	Regina, Sask.
	Vancouver, B.C.	Fraser, Mrs. A. M.	Toronto
Card, Miss A. E.	Toronto	Fraser, Mrs. J. R.	Toronto
Carey, Miss A.	Grafton	Fry, Miss M. M.	Toronto
Carleton, Miss A. M.	Madoc	Fulton, Miss A.	Toronto
Carson, Miss A. S.	Toronto	Furness, Miss H. E.,	
Cavell, Miss K. M.	Listowel		Beaverton
Chambers, Miss N. F.	Stirling	Gallway, Miss G. P.,	
Clapperton, Miss G.	Toronto		Guildford, Eng.
Clark, Miss F. G.	Toronto	Gardiner, Miss S.	Toronto
Clark, Miss M.	Toronto	Gardner, Miss C. W.,	
Cleary, Miss L. G.	Cornwall		Owen Sound
Cleaver, Miss A.	Burlington	Gawley, Miss G. M.	Toronto
Coburn, Miss G. M.	Toronto	Gibson, Mrs. M. L.	Toronto

Name	Home Address	Name	Home Address
Gordon, Miss E. L.	Toronto	Lowrie, Miss A. L.	Cookstown
Grant, Miss B.	Orillia	McCallum, Miss J.	Toronto
Green, Miss A. J.	Toronto	MacDonald, Miss M. A.,	Atherley
Green, Miss T. D.	Baysville	McDougall, Miss M.,	Sydney, N.S.
Grimshaw, Miss M. L.,	Toronto	McGowan, Miss R. B.	Blyth
Haines, Miss E. L.,	Winnipeg, Man.	MacGregor, Mrs. M.	Toronto
Haines, Miss F. L.	Toronto	McGuire, Miss E.	Owen Sound
Halpern, Miss S.	Toronto	MacGibbon, Miss E.	Toronto
Hanly, Miss L. I.	Almonte	MacIntyre, Mrs. J.	Toronto
Harris, Miss M. J.,	Viking, Alta.	MacKinnon, Miss C. C.,	Tiverton
Hathway, Miss L. F.	Toronto	McKinnon, Miss E. G.,	Westmount, Que.
Hawkins, Miss M. N.,	Blind River	MacKinnon, G. J.	Toronto
Hayes, Miss V. M.	London	McKinnon, Miss I. A.	Angus
Henderson, Miss V.,	Mimico Beach	MacLean, Miss F. M.	Kirkfield
Hendricks, Miss M. M.,	Trenton	McLellan, Miss A.	Harriston
Henly, Miss C.	Ottawa	MacLennan, Miss M. C.,	Gould, Que.
Hepburn, Miss E.	Stratford	McNair, Miss L.,	Vancouver, B.C.
Hill, Miss J. E.	Toronto	McNee, Miss O. L. J.	Goderich
Hodd, Miss M.	Hamilton	MacQuarrie, Miss M. J.,	New Gorman, N.S.
Holdsworth, Miss V.	Islington	McRoberts, Miss B. W.,	Granton
Holland, Miss L.,	Westmount, Que.	Mallard, Miss H.	Park Hill
Hopper, R. W.	Toronto	Manning, Miss E.	Toronto
Hunter, Miss L. K.	Oil Springs	Marshall, Miss J. A.,	Sault Ste. Marie
Isaac, Miss E.	Toronto	Master, Miss O. F.	Weston
Jackson, Miss M. H.,	Quebec, P.Q.	Menzies, Miss J. M.	Toronto
Jackson, Miss S.	Toronto	Miller, Miss M. G.	Toronto
Johnston, Miss E. I.	Toronto	Milne, Miss E. M.	Dromore
Johnston, Miss H. L.	Toronto	Milne, Miss J. M.	Belleville
Kaplan, Miss I. S.	Toronto	Moberley, Miss J. V.	Barrie
Kerr, Miss E. M.	Arnprior	Moffat, Miss J. N.	Brockville
Kerr, Miss O. V.,	Port Elmsley	Morgan, Miss S.,	Spaniard's Bay, Nfld.
Kingston, Miss F. C.	Toronto	Moulton, R. F.	Toronto
Knowles, Miss E.	Toronto	Muir, Miss E. L.	Toronto
Laing, Miss E.	Toronto	Murphy, Miss E.,	Brookfield, N.S.
Lane, Miss V. M.	Welland	Needler, Miss M. W.	Millbrook
Large, Mrs. E. P.	Toronto	Newell, Miss L.	Alliston
Lasby, Miss O. M.	Toronto	Nichols, Miss A. O.	Mitchell
Latimer, Miss M. J.,	Gananoque	Nixon, Miss W.	Toronto
Lawson, Miss E. J.,	Georgetown	Noble, Miss M. M.,	Parry Sound
Lea, Miss N.	Consecon	O'Connor, Miss R. M.	Toronto
Lee, Miss M.	Belleville	O'Neil, Miss M. E.	Toronto
Legate, Miss S. D.,	Owen Sound	Orchard, Miss A. I.	Oshawa
Linton, Miss A. M.,	Calgary, Alta.	Ostler, Miss A. F.	Plevna
Littlewood, Mrs. P.,	Halifax, N.S.		
Longworthy, Miss H. M.,	Regina, Sask.		
Lovell, Miss M. G.	Toronto		

Name	Home Address	Name	Home Address
Palen, Miss G. A. . .	Lindsay	Skey, Miss H. F. . .	Toronto
Parsons, Miss L. M. . .	Toronto	Sleeman, Miss E. M., Port Hope	
Paul, Miss E. I. . .	Almonte	Smith, Miss I. M. . .	Curries
Pepperdene, L. A. W. . .	Toronto	Smith, Miss J. . .	Kemptville
Perrie, Miss M. . .	Wingham	Smith, Miss K.	Dundas
Phelps, Mrs. L. . .	Toronto	Smith, Miss L.	Milverton
Pringle, Miss A. M. . .	Napanee	Smith, Miss M. K.,	
Pringle, Miss G. . .	Toronto		Maitland, N.S.
Ramsden, Miss R. . .	Toronto	Snider, Miss B. A. W., Toronto	
Rankin, Miss A. . .	Toronto	Sowerby, Mrs. A. S.,	
Rankin, Miss E. . . .	Toronto		Oak Bay Mills, Que.
Rathbun, Miss N. I.,		Spaulding, Miss A. G. . .	Aurora
	Newport Sta., N.S.	Stoddart, Miss M. E. . .	Desboro
Redman, Miss F. . .	Toronto	Strachan, Miss E. F. . .	Ottawa
Reid, Miss L. F.	Orillia	Sutherby, Miss M. . .	Toronto
Reid, Miss M.	Beamsville	Sutherland, Miss E.,	
Reid, Miss M. D. . . .	Toronto		Leamington
Richmond, Miss J. . . .	Toronto	Sutherland, Miss M. M.,	
Ridout, Miss O. I. . . .	Toronto		Harrington, W.
Rogers, Miss E. T. . .	Toronto	Taggart, Miss M. F. B., Toronto	
Ross, Miss J. W.	Aurora	Taylor, Miss B. G.	Aurora
Ross, Miss M. A. M. . .	Toronto	Taylor, Miss M. R. . .	Kingston
Rotenberg, Miss M. . .	Toronto	Thompson, Miss I. M. . .	Toronto
Russell, Miss H. O. . .	Toronto	Tonkin, Miss A. G. . . .	Toronto
Saer, Miss M. T.	Toronto	Turner, Miss J. M.,	
Sanderson, Miss I. . .	Cheltenham		Sydney Mines, N.S.
Schmidt, Miss G. S. . .	Elmira	VanDuzer, Miss F. L., Newbury	
Schofield, Miss J., St. John, N.B.		Wallace, Miss C. M., Gamebridge	
Scruton, Miss E., Calgary, Alta.		Weldon, Miss O. E. . .	Oakwood
Shaffner, Miss M. R.,		West, Mrs. J. M.	Toronto
	Halifax, N.S.	White, Mrs. G. L.	Simcoe
Shannon, Miss M. K.,		Whitfield, Miss M. A., Toronto	
	St. Thomas	Williams, Miss A. G., Bradford	
Sharpe, F. T.	Toronto	Wilson, Mrs. M.	Toronto
Sime, Miss L. B., St. John, N.B.		Woodill, Miss W.	Toronto
Simonsky, Miss A. . . .	Toronto	Woods, Miss E. M. . . .	Toronto

Summary

First Year	52
Second Year	9
Part-time Students	249
Total	310

DEPARTMENT OF PUBLIC HEALTH NURSING

Full Time Students

Name	Home Address	Name	Home Address
Adams, Miss M. V.	Hanover	Lind, Miss M. O.	Toronto
Allen, Miss M. I.	Toronto	Lynch, Miss L. E.	Toronto
Bastedo, Miss G.	Toronto	MacGibbon, Miss E. M.,	Ottawa
Broadfoot, Miss A.	Toronto	MacMahon, Miss F. W.,	San Francisco, Cal., U.S.A.
Cameron, Miss S. M.	Oakville	McNair, Miss L.,	Victoria, B.C.
Campbell, Miss M. F.,	New Glasgow, N.S.	McRoberts, Miss B. W.,	Granton
Campbell, Miss M. P.,	Vancouver B.C.	Meiklejohn, Miss N. F.,	Toronto
Conlin, Miss F. G.	Toronto	Morley, Miss M. M.	Chesley
Dean, Miss D.	Mono Road	Muirhead, Miss M. I.	Toronto
Fasken, Miss I. M.	Elora	Murdock, Miss M. L.,	St. John, N.B.
Garrow, Miss R.	Chesterville	Nicol, Miss I. M.	Toronto
Hall, Miss H.,	Baltimore, Md., U.S.A.	O'Connor, Miss A. V.,	Toronto
Hendrie, Miss A. B. D.,	Galston, Ayrshire, Scot.	Ramsden, Miss M. B.	Toronto
Hendry, Miss L. G.	Mimico	Richardson, Miss L. M.,	North Bay
Hobson, Miss A. M.	Toronto	Schoales, Miss N. V.	Toronto
Holliday, Miss D. J.	Toronto	Sellery, Miss M. E.	Toronto
Hudson, Mrs. K. M.	Toronto	Shand, Miss L. S. M.,	St. John, N.B.
Huntley, Miss T. C.	Toronto	Sharpe, Miss M.	Toronto
Jones, Miss B.	Elora	Stevens, Miss M. E.	Napanee
Kerr, Miss M. H.	Toronto	Strachan, Miss H. J.	Toronto
Kettlewell, Miss M. B.	Toronto	Thomson, Miss A.	Toronto
Latimer, Miss H. F.	Toronto	Veitch, Miss R.	Toronto

Part Time Students

Bell, Miss A. C.	Plattsville	Macpherson, Miss H. W.,	Toronto
Blackmore, Miss G. S.	Toronto	McLennan, Miss C.	Toronto
Campbell, Miss F. O.,	Port Elgin	McMurrich, Miss H. M.,	Toronto
Daniel, Miss G.	Toronto	McNeil, Miss J. G.	Toronto
Dowdell, Miss I.	Toronto	Manning, Miss E.	Toronto
Dunn, Miss E.	Orillia	Marshall, Miss N. L.	Toronto
Dyce, Miss M. I.	Meaford	Meador, Miss K.	Toronto
Ferriman, Miss M. A.,	Ottawa	Mutch, Miss J. G.	Toronto
Graham, Miss B. V.	Lucknow	Reid, Miss D.	London
Hutchins, Miss E. W.	Toronto	Rogers, Miss A. A.	Toronto
Hutchinson, Miss B. S.,	Toronto	Schreiber, Miss E. C. R.,	Clarkson
Husband, Miss M. A.,	Toronto	Sketch, Miss R. B.	Toronto
Jordon, Miss T. B.,	Westmount,	Stamenova, Miss P. K.,	Stumitze, Serbia
	P.Q.		
Kilburn, Miss J.	Toronto		
McKinnon, Miss E. D.	Ottawa		

Name	Home Address	Name	Home Address
Stewart, Miss M. E.	Toronto	Warner, Miss A. L.,	
Sutherland, Miss S. S.,	Toronto		St. John, N.B.
Walker, Miss J. M.	Ingersoll	Weldon, Miss O. E.	Oakwood

Summary

Full-time Students	44
Part-time Students	33
Total	77

General Summary.

Faculty of Arts:

University of Toronto	314
University College	1,251
Victoria College	542
Trinity College	136
St. Michael's College	233
Registered twice	22
	2,454
Graduate Courses	198
Faculty of Medicine	1,072
Faculty of Applied Science and Engineering	821
Ontario College of Education	353
Faculty of Forestry	62
Faculty of Music	44
Department of Social Science	310
Department of Public Health Nursing	77
Registered twice	42
Grand Total	5,349

HISTORICAL SKETCH

The movement which ended in the establishment of the University of Toronto as the centre of the educational system of the Province of Ontario originated with General Simcoe, the first Governor of Upper Canada, who repeatedly expressed his conviction, both before his departure from England and also during his term of office (1792-1796), that the best interests alike of the Government and of the inhabitants demanded the establishment of a University in Upper Canada. It was not, however, during his administration that the project assumed a definite form.

In 1797 the Legislative Council and House of Assembly in a joint address to King George III. asked "that his Majesty would be graciously pleased to direct his Government in the Province to appropriate a certain portion of the waste lands of the Crown as a fund for the establishment and support of a respectable Grammar School for each district thereof; and also a College or University for the instruction of youth in the different branches of liberal knowledge". To this address a favourable answer was transmitted, and the acting Lieutenant-Governor, the Hon. Peter Russell, was directed to determine the manner and character of the appropriation. In accordance with this request the Executive Council of Upper Canada reported on the 1st December, 1798, that an appropriation of 500,000 acres would be sufficient for the support and maintenance of four Grammar Schools and a University. For the foundation of the latter nothing was done until 1827, when a Royal Charter was granted for the establishment at or near York, as Toronto was then called, of a College, "with the style and privileges of a University", to be called "King's College", having for its endowment that portion of the grant of "waste lands" originally provided for the University in the report above referred to. These lands were in 1828 exchanged for 225,944 acres of Crown Reserves.

Owing not only to the character of the endowment, which required time for its realization in the form yielding an annual revenue, but also owing to the terms of the charter, which required all the members of the Faculty to be adherents of one particular religious denomination, the opening of the College was delayed for fourteen years. In consequence of public representations on the sectarian character of the College, all religious tests were abolished by an amended charter which passed the two Houses of the Provincial Legislature and received the Royal Assent in 1837. In 1842 the affairs of the University had assumed such a condition as to render its organization possible, and Faculties of Arts, Medicine, Law and Divinity were established. In that year the erection of the College Building was begun on the eastern portion of the site of the present Legislative Buildings. In 1843 the first matriculation of students took place, and inaugural addresses and lectures were delivered on the 8th and 9th of June of that year.

The agitation which resulted in the amended charter of 1837 had continued after the opening of the College in 1842, owing to the efforts made to defeat the purpose of the amendment, and in 1849 an Act of the Legislature effected important modifications in the constitution of King's College whereby all instruction in Divinity was discontinued, and a larger measure of public control of the affairs of the University instituted, through the formation of a Senate, of which a number of the members were appointed by the Crown. The name was now changed from that of "The University of King's College" to that of "The University of Toronto".

Three years afterwards the University underwent a further transformation, by which the Act of 1853 abolished the Faculties of Medicine and Law, and divided its functions between the two newly organized corporations of the "University of Toronto" and "University College." To the Senate were assigned the duties of framing the curriculum, holding examinations and admitting to degrees in Arts, Law and Medicine, while to the Presidents and Professors of University College, as a distinct and independent corporation with special powers, were assigned the teaching in Arts and the entire discipline and control of students. The models followed in the reorganization of the University, it claimed, were the University of London and University College, London, both of which had then been only recently established. For thirty-four years the University of Toronto and University College performed the functions respectively assigned to them by this Act.

During the early years of the University it experienced repeated changes in its local habitation. The faculty and students of King's College were at first temporarily accommodated in the Parliament Buildings until the erection of the east wing of King's College admitted of the occupation of their own building. From this they were anew transferred to the old Parliament Buildings in 1853, when, by a special Act, the site of King's College was appropriated for the proposed new buildings for the use of the Parliament of Upper and Lower Canada. On the return of the Legislature to Toronto, in 1856, the Faculty resumed the occupation of the old King's College Building, while one formerly in use by the Medical Faculty, situated on the site of the present Biological Building, was being adapted for their occupation. There accordingly the work of the College was carried on, pending the erection of the new University buildings. These buildings were begun in 1856, and on October 4th, 1859, the top stone of the main tower was placed in position by Sir Edmund Head, the Governor-General, an old Oxford professor, the value of whose sympathy and support at this critical period in the history of the University cannot be overestimated.

For thirty-four years the constitution of the University of Toronto and of University College remained unchanged. Other collegiate bodies, principally denominational schools of theology, entered into affiliation with the University, and, with regard to their especial requirements, the course of study in Oriental Languages was augmented, but the Faculty of University College continued to do the work of instruction for nearly all the students

in Arts who presented themselves for examination. The candidates for examination and degrees in medicine were trained in medical schools in affiliation with the University, and for degrees in Law the examinations were based upon text-books prescribed by the Senate, without teaching.

In 1887 both the University of Toronto and University College were remodelled by the University Act. The main object of renewed legislation was to secure a more uniform standard of higher education by the union of the various denominational universities of Ontario with the Provincial University. Since the proclamation of the Act, Victoria University at Cobourg, representing the Methodist body, has entered into federation with the University of Toronto. The governing body of this institution is now represented on the Senate of the University of Toronto, its graduates elect representatives to the same body, and by the removal of the faculty and students of Victoria University to Toronto, where college buildings have been erected to the north of Queen's Park, the union of the two universities has been effected. Under the Federation Act, the theological colleges, also formerly in affiliation with the University of Toronto, have become federated colleges, and enjoy increased representation on the Senate.

The Faculty of University College, by the Act 1887, consists of professors and lecturers in Classic Languages and Literature (including lectures in Ancient History), Oriental Languages, English, French, German and Moral Philosophy. All other portions of the Arts course are assigned to the Faculty of the University of Toronto, of which the lectures are made equally available to the students of University College, and those of all federating universities and colleges. For the maintenance of certain of the departments of science on a scale demanded by modern methods of research, special provision has been made by the erection of new and the enlargement of old buildings. In the new Biological Building every facility is now provided for practical training in Biology and Physiology. The Chemical Building was completed in 1895, and affords similar facilities for practical work in Chemistry.

A Faculty of Medicine in the University of Toronto was established immediately upon the passing of the Act in 1887, and teaching is imparted in all branches of medical science. All the advantages of the Faculty of Arts are available for students in Medicine, and the laboratories of the scientific departments are utilized equally by students in both faculties. In 1903 the new Medical Building was opened.

In 1888 a stimulus was given to the study of scientific methods of farming by the affiliation of the Ontario Agricultural College and the adoption of a curriculum of study for the degree of Bachelor of the Science of Agriculture. Similarly an examination for the degree of Doctor of Dental Surgery was instituted, as a consequence of the affiliation of the Royal College of Dental Surgeons of Ontario. The College of Pharmacy was subsequently admitted to affiliation and a curriculum in Pharmacy prescribed. On the affiliation of the Toronto College of Music a curriculum of study was prepared for the degree of Bachelor of Music. The School of

Practical Science was affiliated in 1889, and graduates of the School are specially eligible on certain conditions for the degree of Bachelor of Applied Science and of various degrees in Engineering in the University. By a recent enactment of the Senate a curriculum was prescribed leading to the degrees of Bachelor and Doctor of Pedagogy. In 1897 a course of study was established leading to the degree of Doctor of Philosophy in certain of the Arts departments. In 1897 the Ontario Veterinary College was also affiliated.

On February 14th, 1890, the Main University building was partly destroyed by fire. In the reconstruction thereby rendered necessary, opportunity was afforded for important improvements in lighting, heating and ventilation. Considerable extension was effected in the numbers, capacity and equipment of the lecture rooms and laboratories. A new library building was erected on plans embracing the most recent improvements suggested by the experience of leading universities in the United States and elsewhere. A building for the accommodation of the Gymnasium was erected in 1882, and additions to it were completed in 1894 for the accommodation of student societies.

One of the most important events of recent years was the federation of the University of Trinity College, which was proclaimed by His Honour the Lieutenant-Governor on the 18th of November, 1903, and came into effect on the 1st of October, 1904.

The passing of the University Act, 1906, is the latest and most important development in the history of the University. A short account of the changes of greatest importance will be found in the early portion of this calendar under the title "Constitution and Administration of the University".

As provided in the University Act of 1906, St. Michael's College was declared to be a College in the Faculty of Arts on the 8th of December, 1910. On November 11th, 1919, Hart House, the gift of the Massey Foundation, was formally opened by His Excellency the Duke of Devonshire, Governor-General of Canada. The building is the new Undergraduates Union of the University and contains completely equipped club rooms, including common rooms, dining hall, chapel, the offices of the various students societies, gymnasia and theatre

THE ROYAL ONTARIO MUSEUM.

The Royal Ontario Museum was officially opened by Field Marshal His Royal Highness the Duke of Connaught, Governor-General of Canada, on the afternoon of Thursday, March 19th, 1914. This event marked a memorable occasion in the history of Art and Science in the Province of Ontario.

The Royal Ontario Museum was established under an Act of the Legislative Assembly of Ontario in the year 1912. According to the Act the purposes of the museum are:—

(a) The collection and exhibition of objects of every kind calculated to illustrate the natural history of Ontario, and thereby to aid in a knowledge of what this province is able to contribute to science and industry.

(b) The collection and exhibition of objects of any kind calculated to illustrate the natural history of the world and the history of man in all ages.

(c) Such other objects as may be authorised by the Lieutenant-Governor in Council.

The cost of the erection of the building and the maintenance thereof is borne in equal amounts by the Province of Ontario and the University of Toronto. The present building, inclusive of offices, is 360 feet long and 60 feet wide and was erected at a cost of about \$400,000. The large section of University property lying between the present building and Avenue Road has been reserved by the Board for the extension of the Museum. The proposed plans show the building in the form of a hollow square with a handsome stone front facing Bloor Street.

Under Section 20 of the Museum Act the Board is empowered to establish various departments of the Museum which are to be designed "The Royal Ontario Museum of. . . .". In accordance with this by-law the Board has already established the Royal Ontario Museums of Archaeology, Geology, Mineralogy, Palaeontology and Zoology.

The establishment of this museum conjointly by the Province of Ontario and the University of Toronto is due in very large measure to the enthusiasm and leadership of Sir Edmund Walker, the Chairman of the Board of Trustees.

The Museum is governed by a Board of Trustees, a body corporate consisting of ten members. The Minister of Lands, Forests and Mines and the Minister of Education of the Province of Ontario, and the Chairman of the Board of Governors of the University of Toronto are ex-officio members of this Board. The other seven members are appointed—four by the Lieutenant-Governor in Council, and three by the Governors of the University of Toronto as follows,—

Appointed by the Lieutenant-Governor in Council :

SIR EDMUND OSLER,
J. B. O'BRIAN, ESQ., K.C.
MRS. H. D. WARREN;
SIGMUND SAMUEL, ESQ.,

Appointed by the Governors of the University of Toronto :

The Chancellor of the University,
The President of the University,
The Rev. and Hon. Dr. Cody

ARCHAEOLOGY.

The Royal Ontario Museum of Archaeology is under the direction of C. T. Currelly, and is designed to show the best work which was done in the different crafts by the people of the past. An attempt has been made to show the history of the development of each of the great arts which have made civilization possible, by exhibiting the best examples of the early stages of development, of the culminating point, and then of the decline.

For the Stone Age the collection is very large, almost world-wide. The use of the early metals (copper and bronze) in the evolution of important tools is shown by a series of examples grouped under the Last Pre-historic Collection.

A large Egyptian series and a smaller Babylonian collection exhibit the history of pottery, stone vases, weapons, jewelry, medicinal articles, tools, textiles, sculpture and objects connected with death and burial. These exhibits occupy three galleries.

Two large galleries are devoted to the exhibition of ancient works of art from Greece and Italy. These consist of vases that illustrate nearly all the stages of vase painting from the Aegean and the mainland, armour, statuettes, jewels, and sculpture.

The next gallery is devoted to a collection to illustrate the life of the common people at the time of Christ and the early Church. This ranges from rag dolls to weapons, and from combs and domestic articles to shoes and tunics. In this same gallery is a large collection mainly of pottery objects obtained from the tombs of Palestine, and extending in periods from the earliest times down to the periods of the Byzantine empire.

As the student is now brought through the great spread of civilization of the Roman period, the next exhibition is of those nations that have lagged behind, where pre-historic things may be illustrated more freely by peoples who have recently been in the stone age. Here are shown the weapons and implements of the Eskimos, Africans, and South Sea Islanders, and of other peoples in the stone age or other primitive conditions.

Parallel to this gallery runs the collection illustrating the life of the American Indian. This consists of a fine series of paintings, objects of

the stone age, and survivals of early things in use by the present Indians. It is mainly devoted to North America, though several cases contain Peruvian and other South American objects.

The great central hall is packed with Chinese works of art, of which we are particularly rich in tomb objects, especially terracotta sculptures and early wares. The collection of stone sculpture is also considerable, and the collection of textiles, jades, bronzes, etc., quite large. The whole forms one of the best general collections of Chinese art in existence. No space is available for the large collection of very fine Chinese paintings possessed by the Museum.

South of the central hall are two galleries devoted mainly to furniture and rooms, but with a certain number of costumes, musical instruments, etc., put in because of lack of other space for them.

The cross gallery at the end contains the Japanese collections of pottery, bronzes, armour, carvings, paintings, etc.

Between the large central hall and the door are parallel galleries, one devoted to the history of faience, and filled in with velvets, glass, furniture, sculpture, etc.; the other one devoted to lace and embroideries, but with the general collection of arms and armour also packed into it.

The space immediately inside the door is at present filled with an exhibit that is to go into the new War Museum.

MINERALOGY

In the Royal Ontario Museum of Mineralogy which is under the direction of Professor T. L. Walker, are very extensive collections of minerals and rocks. The most generous benefactors of this section are men connected with the mining industry. To make the collections more useful to visitors the large specimens contained in the high cases are provided with special explanatory labels. In the cases on the east wall of the gallery a special display of the minerals of Canada is arranged. The Director appeals to friends of the University for contributions of minerals and rocks with a view to making these collections as complete as possible.

During the past year the collections have been increased by donations from a large number of friends, particularly mine owners and mining engineers in the Cobalt, Sudbury, Porcupine and Kirkland Lake areas. Notable presentations have been made by the Geological Survey of Canada, the Department of Mines of Ontario, the Geological Survey of Brazil, the De Beers Consolidated Mines Limited, the Hollinger Gold Mines, William J. Woods, Lewiston, Pennsylvania, Dr. Leo Coleman, Radium Information Service Company, A. M. Bateman and Professor H. E. T. Haultain.

Important exchanges have been made with the Geological Survey of the Union of South Africa and the Instituto Geológico Nacional, México.

GEOLOGY.

The Museum of Geology is under the direction of Professor A. P. Coleman and occupies the gallery along the west front of the basement. The ten alcoves into which the gallery is divided are designed to exhibit material illustrating the mineral resources of Canada and Economic and Structural Geology in general. It is intended that this gallery should be devoted to ores rather than to minerals, and it depends for its advancement on the generosity of mining men throughout the country.

The more important collections now in position in this gallery are the Cobalt silver ores, specimens illustrating the geology and ore deposits of the Sudbury nickel field, the coals of Canada, the asbestos and mica mines, and most of the metalliferous mines of Canada and other parts of the world. A particularly valuable exhibit is one illustrating the occurrence of ice ages at different times in the history of the earth. The more important marble producing regions of America are represented by a fine series of pedestals.

The more important additions to the Museum of Geology during the year are as follows:

Fossil wood from Yellowstone Park—Alfred E. Bailey, Toronto.

Zinc ores from Arizona and Missouri—Professor Bayley.

Prepared cubes of Ohio freestone—Cleveland Stone Co., Cleveland, Ohio.

Prepared cubes of Indiana limestone—Indiana Quarries Co., Bedford Ind.

Oil shale from Colorado and Utah—F. V. Clisdale, Esq., Toronto.

Lead ore from Galletta, Ont.—Kingdom Mining Co.

Asbestos from Thetford, Que.—Consolidated Asbestos Co., Montreal.

Electrum from Comstock lode—Consolidated Virginia Co.

Prepared sample Lockport dolomite, Beamsville, Ont.—Hon. Wm Gibson

Large collection of polished slabs of European marbles—Mr. H. R. Ivor, Toronto.

Osmiridium from Tasmania, Nickel and cobalt ores from New Caledonia, Laterites from Cuba—Dr. W. G. Miller, Toronto

Case of finished manufactured products of nickel—Mond Nickel Co., England.

Fire clays, volcanic ash, bentonite, etc.—Mr. Joseph Keele, Ottawa

Barite from the Columbia Valley—Dr. A. W. G. Wilson, Ottawa.

PALAEONTOLOGY.

The Museum of Palaeontology is under the direction of Professor W. A. Parks, and occupies the middle section of the top floor of the building. The collection of fossils is very extensive and contains many rare and unique specimens. It has developed from a nucleus presented by Sir Edmund Walker some years ago. Among the more important exhibits are the

type Cambrian fossils presented by Sir William MacKenzie, the fossil sea-lilies presented by Mr. Frank Springer of Burlington, Iowa, a large fossil reptile presented by Sir Edmund Walker, Sir Donald Mann, Sir Lyman Melvin Jones and others. Recently a very fine skeleton of the extinct moa of New Zealand was added, and the skeleton of a mastodon, obtained some years ago near Welland, was prepared and mounted.

A series of wall cases has been installed, in which the geology and palaeontology of Canada is illustrated in a continuous but restricted manner.

During the last few years a vigorous campaign has been conducted for the acquisition of fossil dinosaurs from the famous region on the Red Deer river, Alberta.

Two nearly complete specimens of trachodont dinosaurs have been mounted in the gallery: one of these is a species new to science and the other represents a new genus and species of the most remarkable character. There has also been placed on exhibition a very perfect head and part of the body of the horned dinosaur *Centrosaurus apertus*. In addition to these prepared specimens the store rooms contain several other skeletons awaiting the work of the preparators.

The department is provided with commodious storage and preparation rooms equipped with the necessary appliances for cutting and polishing specimens, and for the complex work of preparing vertebrate skeletons.

The more important acquisitions during the past year are as follows —

The skeletons of several dinosaurs and turtles from the Red Deer river Alberta—Expedition of 1921

Large slabs of fossil leaves from Alberta—Expedition of 1921.

Series of fossils and large slabs with *Bryozoa* from the Lorraine formation of Workman's Brook, Ont.—The Director and Assistants.

Mammoth tooth from Toronto—Mr. W. F. Deer, Toronto.

Richmond fossils from Ohio—Dr. A. J. Foerste, Dayton, Ohio.

Miocene leaves from Queen Charlotte Islands—Captain Smith, Queen Charlotte.

Large collection of Carboniferous fossils from Nova Scotia—Geological Survey of Canada.

Collections of fossils from the vicinity of Toronto—The Director and Assistants.

ZOOLOGY.

The Museum of Zoology is under the direction of Professor B. A. Bensley, and occupies the north portion of the top floor of the building. The first installation of specimens took place in 1914, some time after the establishment of the remaining portions of the Royal Ontario Museum, the nucleus of the new collection having been formed chiefly from Canadian material previously housed in the Biological Museum of the University. Many new additions have been made through the generosity of individual donors and through the co-operation of the Provincial Government and the Parks

Department of the City of Toronto. The exhibits illustrate especially the fauna of Canada, all groups of which are represented, though Birds, Mammals, and Insects predominate. Some foreign material, more especially of birds, mammal heads and molluscan shells, has been installed as the beginning of a more general collection which will be developed later when more extensive accommodation becomes available.

ADDITIONS TO COLLECTIONS.

ZOOLOGY.

The zoological collections have been greatly extended by the addition of new systematic material collected by the staff chiefly from Lake Nipigon. The Museum now has on exhibition a synoptic collection of chief types of Canadian insects properly classified and labelled. The series of habitat groups has now been increased to eighteen, in all of which the animals, chiefly birds and mammals are shown in replicas of the actual environment from which they were taken. The collection of coloured casts of Canadian fishes has been greatly enlarged. In addition to a variety of smaller single specimens, the Museum has received by donation several collections, including one of birds and mammals from Mr W. N. Moorhouse, Toronto, one from Mrs. T. D. Wilson, Toronto, and one from Mrs. Knox, Toronto. An albino deer has been received from Mr J. J. Walsh, Toronto, and a large number of specimens including some mammals such as bison, Japanese deer, fallow deer and a young lioness have been presented by the Parks Department, City of Toronto. Sir Edmund Walker, Chairman of the Board of Trustees has presented to the Museum of Zoology the valuable series of oil paintings illustrating the natural history and life of Northern Canada by Mr. Arthur Heming, the originals of the plates appearing in his book "The Drama of the Forests" and other publications.

DONATIONS OF BOOKS.

Since the destruction of the University Library by fire in 1890, upwards of 50,000 volumes have been presented by various persons and organizations. For a complete list of the latter see Appendices to Calendars since 1893. The following is a list of donors for the year ending December 31st, 1921.

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Académie Royale des Sciences et des lettres.	
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Adelaide, University of.	
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Alberta, University of.	
Alliance Française, Paris.	
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American Association for International Conciliation.	
American Association of Variable Star Observers.	
American Historical Association.	
American Law Book Company.	
American Mining Congress, Washington.	
American Museum of Natural History.	

American Pediatric Society.
American Philosophical Society.
American Proctologic Society.
American Red Cross.
American Securities Corporation.
American Wood Preservers' Association.
Amherst College.
Amsterdam University, Physiological Laboratory.
Armour Institute of Technology
Association of American Physicians.
Association of American Universities.
Association of Life Insurance Medical Directors.
Auburn Theological Seminary.
Australia, Commonwealth Library.
Australia, Institute of Science and Industry.
Australian Museum, Sydney, N.S.W.
Bâle, University of.
Bankers' Trust Co., N.Y.
Basel, University of.
Bergens, Museum.
Bernice P. Bishop Museum, Hawaii.
Birmingham Public Libraries.
Bodleian Library.
Boston Public Library.
Boston, University of.
Bowdoin College.
Bradley Polytechnic Institute.
Breslau, Chamber of Commerce.
British Columbia, University of.
British Museum.
Brooklyn Institute of Arts and Sciences, Museum.
Brown University.
Brussels, University of.
Bryn Mawr College.
Budapest, University of.
Buenos Aires, University of.
Buffalo Historical Society.
Bulletin des Recherches Historiques.
Bureau of American Ethnology.
Cairo, Public Health Laboratories.
California State Library.
California, University of.
Cambridge Philosophical Society, England.
Cambridge, University of, Solar Physics Observatory.

Canadian Bankers' Association.
Canadian Bank of Commerce.
Canadian Pacific Ry., Montreal.
Canadian Reconstruction Association, Toronto.
Canadian Red Cross Society.
Canadian Seed Growers' Association.
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Catholic Historical Review, Washington
Catholic University of America.
Ceska Universita, Prague.
"Chemical Age."
Chicago, Bureau of Standards.
Chicago, University of.
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College of the Pacific, Cal.
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Colorado College.
Colorado, School of Mines.
Columbia University.
Comité de Relations Internationales de Marseille.
Comité des Amities Catholiques françaises.
Connecticut State Library.
Consul General for France, Ottawa.
Consul General for Japan, Ottawa.
Cordoba, Academia Nacional de Ciencias.
Cornell, University of.
Corpus Christi College, Cambridge.
Dante Society.

Deutsche Dendrologische Gesellschaft.
 Dijon, University of.
 Dominion Medical Monthly.
 Dropsie College.
 Durban Museum, Natal.
 Durham, University of Armstrong College.
 Durham University, Philosophical Society.
 Ecole Française des Hautes Etudes, Paris.
 Ecole libre des Sciences Politiques, Paris.
 Edinburgh, University of.
 Eli Lilly and Co., Indianapolis.
 Editorial-American, Madrid.
 Engineering Institute of Canada.
 Episcopal Theological School, Cambridge.
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 Groningen, University of.
 Habana, Universidad de la.
 Hamburg, University of.
 Hamburgische Zoologische Museum.
 Hartford Seminary Foundation.
 Harvard College, the Librarian.
 Harvard College Observatory.
 Havana, University of.
 Haverford College.
 Helsingfors, Observatoire Astronomique.
 Heye Museum.
 Hobart College Library.
 Hong Kong, Royal Observatory.
 Howard University, Washington.
 Hudson's Bay Company, Winnipeg.
 Hydro Electric Power Commission of Ontario.
 Illinois Catholic Historical Society.
 Illinois State Historical Society.
 Illinois State Water Survey Division.
 Illinois, University of.

India, Agricultural Adviser to the Government.
India Office, London.
Indian Museum.
Indiana Legislative Reference Bureau.
Indiana State Library.
Indiana University, Bloomington.
Innsbruck, University of.
Institucio Catalana d'història Natural.
Institut d'Estudis Catalans, Barcelona.
Institut des Hautes Etudes, Brussels.
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Institute Inter. Education, N.Y.
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"Inter-America."
International Health Board, N.Y.
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Iowa, University of.
Jardin Botanique de l'état à Bruxelles.
John Crerar Library.
Johns Hopkins University.
Journal of International Relations.
Junta de Ciencias Naturals.
Kansas State Historical Society.
Kansas, University of.
Karl Franzens Universität zu Graz.
Kent Historical Society.
King Edward VII. Sanatorium.
K. Academia de la Historia, Madrid.
K. Nantisk Meteorologiska, Bryan.
K. Vitterhets Historie och Antikirkets Akademien.
Kgl. Norske Videnskabers Selskab Trondhjem.
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Lausanne University.
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London, School of Economics.
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Lyon Université.
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Manilla, Bureau of Science.
Marburg, University of.
Marine Biological Association, Plymouth.
Massachusetts, State Library.
Medical Research Committee, London.
Melbourne University.
Meteorologiska Centralanstalten, Stockholm.
Miami Conservancy Bulletin.
Miami University.
Michigan College of Mines.
Michigan Historical Commission.
Michigan, University of.
Minnesota Historical Society.
Minnesota, University of.
Mississippi Valley Historical Association.
Missouri State Historical Society.
Missouri, University of.
Missouri, University of, School of Mines and Metallurgy.
Musée Oceanographique, Monaco.
Museo de Hist. National Montevideo.
Museu Paulista, San Paula.
Muséum National d'Hist. Naturelle, Paris.
Museum of the American Indian.
Mysore University.
Nancy, University of.
National Acad. of Sciences, Washington.
National Advisory Committee of Aeronautics, Washington.
National Association of State Universities.
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National Research Council, Washington.
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Neuchatel, University of.

Newberry Library.
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New Orleans Association of Commerce.
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New York Bureau of Social Research.
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Oberhessische Gesellschaft für Natur-und Heilkunde.
Ohio Archaeological and Historical Society.
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Ohio State University.
Ohio Wesleyan University.
Ontario College of Art.
Ontario College of Education.
Ontario Historical Society.
Ontario, Legislative Association, Distribution Office.
Ontario Provincial Museum.
Oregon Historical Society.
Otago, University, N.Z.
Ottawa, University of.
Oud-Katholeek, Holland.
Padova, University of.
Pan-American Union.
Pasteur Institute.
Peking Union Medical College.
Pennsylvania State College.
Pennsylvania, University of.
Philadelphia, College of Physicians.
Popular Astronomy.
Poynting Memorial Fund, Birmingham University.
Portici, Laboratorio di Zoologia Generale.
Presbyterian College, Halifax.
Princeton University.

Puget Sound Biological Station, University of Washington.
Purdue University.
Quebec Geographical Society, Quebec.
Queen's Borough Public Library, Jamaica.
Queensland Museum.
Queen's University, Kingston.
R. Academia de Ciencias y Artes, Barcelona.
R. Academia de la Historia.
R. Accademia dei Lincei.
R. Accademia della Scienze Torino.
R. Istituto di Studi Superiori, Florence.
R. Sociedad Espanola de Historia Natural.
Radcliffe Library.
Radcliffe Observatory, Oxford.
Revista de Archivos.
Revue de l'Université de Bruxelles.
Rockefeller Foundation, N.Y.
Rockefeller Institute.
Rolla, Mo. School of Mines and Metallurgy.
Rose Polytechnic Institute.
Rothamsted Experimental Station.
Royal Academy of Amsterdam.
Royal Astronomical Society of Canada.
Royal Astronomical Society, London.
Royal Botanical Gardens, Kew.
Royal Canadian Institute.
Royal College of Surgeons of London.
Royal Cornwall Polytechnic Society.
Royal Dublin Society.
Royal Geographical Society, London.
Royal Observatory, Cape of Good Hope.
Royal Scottish Geographical Society.
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"Roycrafters," East Aurora.
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St. Louis Academy of Science.
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Siena, University of.
Smith, College.
Smithsonian Institute.
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Société Française de Physique.
Society of Antiquaries of London.
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South Dakota School of Mines.
Southern California, University of.
Sternwarte Des Eidgenoss Polytechnikums, Zurich.
Stevens Institute of Technology.
Strasbourg, Université de.
Sydney, University of.
Tartu, University of.
Tech. Engineering News.
Texas State Historical Association.
Texas, University of.
Theosophical Society, Brooklyn, N.Y.
Thunder Bay Historical Society.
Tohoku Imperial University.
Tokyo, University of.
Toronto, Bureau of Municipal Research.
Toronto, Meteorological Office.
Toronto, Public Library.
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Wooster, College of.
Wrenn Library, University of Texas.
Wyoming, Historical and Geological Society.
Yale University.
Yorkshire Philosophical Society.
Zoological Society of London.
Zoological Society of Tokio.

Individual Donations.

Alfonso, Jose A., Santiago de Chile.
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Wakefield, Col. Sir Charles, London.

Walker, G. M., N.Y.

Wallace, W. S., Assistant Librarian.

Woelinga, D., Mennonite Relief Committee.

Wood, Wm and Co., N.Y.

Wrong, Professor G. M.

PORTRAITS AND WORKS OF ART.

The following portraits and works of art have been presented to the University:

1. A portrait of the late Hon. William Hume Blake (oil painting by T. Hamel), presented by the Hon. Edward Blake.

2. A portrait of the Hon. Edward Blake, Chancellor 1876-1900 (oil painting by E. Wyly Grier), presented by graduates and friends.

3. A portrait of Professor E. J. Chapman (oil painting by Miss Frances Sutherland), presented by the artist.

4. A portrait of the late Professor Henry Holmes Croft (oil painting by A. Dickson Patterson), presented by friends of Professor Croft.

5. A portrait of the late President, Dr. McCaul (oil painting by A. Dickson Patterson), presented by the artist.

6. A portrait of the late Hon. Thomas Moss, Chief Justice of Ontario, Vice-Chancellor 1875-1881 (oil painting by Miss C. S. Berthon, copy of oil painting by M. Berthon), presented by the Hon. Charles Moss, Chief Justice of Ontario, Vice-Chancellor of the University.

7. A portrait of the late Right Reverend Bishop Strachan (oil painting copy), presented by the Council of University College.

8. A portrait of the late President, Sir Daniel Wilson (oil painting by A. Dickson Patterson), presented by friends of Sir Daniel Wilson.

9. A portrait of Professor E. J. Chapman (oil painting by A. Dickson Patterson), presented by graduates and friends.

10. A marble bust of the late Professor George Paxton Young (by Hamilton McCarthy), presented by friends of Professor Young.

11. A portrait of the late Professor George Paxton Young (oil painting by W. Allaire Shortt), presented by the artist.

12. A steel engraving of Sir John Colborne, afterwards Lord Seaton, Lieutenant-Governor of Upper Canada from 1830 to 1838, presented by Mr. Henry Hutchison.

13. "The Call to Duty" (oil painting by Paul Giovanni Wickson), presented to the Medical Faculty by the artist.

14. "The Marriage of the Duke of York" and "The King of Denmark's First Visit," commemorative medals, presented by the Town Clerk of London, Eng.

15. A bronze medal commemorative of the sesquicentennial anniversary of the founding of the College of New Jersey (Princeton University), presented by the trustees of Princeton University.

16. A bronze medal commemorative of the 150th anniversary of the capture of Louisbourg in 1745, presented by the Louisbourg Memorial Committee of the General Society of Colonial Wars.

17. A bronze medal commemorative of the 50th anniversary of Sir George Gabriel Stokes' appointment to a professorship in the University of Cambridge.

18. Busts of Dr. W. T. Aikins, Dr. J. H. Richardson, and Dr. H. H. Wright, by the Medical Faculty and other friends.

19. A bust of the late Hon. George Brown, and a portrait of the late Professor Croft, by Dr. Reeve.

20. Portraits of their Royal Highnesses the Prince and Princess of Wales, presented by their Royal Highnesses as a souvenir of their visit to the University in 1901.

21. A portrait of the Hon. Sir William Mulock, LL.D., ex-Vice-Chancellor of the University, presented by members of the Senate and other friends.

22. A steel engraving after Turner, by the late Sir Daniel Wilson, presented by Charles James Heywood, Esq., Manchester, Eng.

23. A collection of medals and coins, bequeathed by the late Dr. Scadding.

24. A portrait of Professor Goldwin Smith, presented by J. Ross Robertson, Esq.

25. A portrait of Dr. John Hoskin (oil painting by Robert Harris), presented by members of the Board of Governors and of the Senate and other friends.

26. A portrait of Dr. Maurice Hutton, Principal of University College (oil painting by William Cruikshank), presented by the Board of Governors.

27. A portrait of Sir Daniel Wilson, late President of the University of Toronto (oil painting by Sir George Reid), presented by members of the Board of Governors and of the Senate and other friends.

28. A portrait of Dr. R. A. Reeve (oil painting by Curtis Williamson), presented by members of the Board of Governors and of the Senate and other friends.

29. A portrait of Dr. John Galbraith (oil painting by J. W. L. Forster), presented by graduates of the Faculty of Applied Science.

30. A portrait of Dr. James Loudon, ex-President of the University of Toronto (oil painting by William Orpen), presented by the members of the Senate and other friends.

31. A portrait of Dr. James Loudon (oil painting by Frederick Victor Poole), presented by Mrs. Loudon.

32. A portrait of the Hon. Sir William Ralph Meredith, LL.D., Chancellor of the University (oil painting by William Strang),

presented by members of the Board of Governors and of the Senate and other friends.

33. A portrait of the late Hon. Joseph Curran Morrison, Chancellor of the University of Toronto, 1860-1876 (oil painting by Charles Hayward) presented by Judge Hardy of Brockville.

34. A portrait of Dr. William Henry van der Smissen, Professor Emeritus of German in University College (oil painting by Professor Philip Otto Schafer), presented by Mrs. van der Smissen.

35. A bronze medal commemorative of the 300th Anniversary of the founding of the University of Groningen.

36. A portrait of the late John Langton, M.A., Vice-Chancellor of the University of Toronto, 1856-1861 (oil painting by E. Wyly Grier) presented by his surviving sons, W. A. Langton, John Langton and H. H. Langton.

37. A portrait of the late Larratt William Smith, D.C.L., K.C., Vice-Chancellor of the University of Toronto, 1873-1875 (oil painting by G. T. Berthon), presented by his family.

38. "C'est l'Empereur" (oil painting by H. de T. Glazebrook), presented by the artist.

39. A portrait of the late William Oldright, M.A., M.D., Professor of Hygiene in the University of Toronto, 1887-1910 (oil painting by E. Wyly Grier), presented by his children.

40. A portrait of James Mavor, Ph.D., Professor of Political Economy in the University of Toronto (oil painting by Horatio Walker, Esq., LL.D.), presented by the artist.

41. A portrait of Charles Vincent Massey, M.A., a member of the Board of Governors of the University (oil painting by F. H. Varley), presented by friends of Mr. Massey.

42. A portrait of Robert Ramsay Wright, M.A., D.Sc., LL.D., Vice-President and Dean of the Faculty of Arts of the University of Toronto, 1901-1812, and Professor Emeritus of Biology (oil painting by Arnesly Brown), presented by the Board of Governors.

43. A portrait of Alfred Baker, M.A., LL.D., Dean of the Faculty of Arts of the University of Toronto, 1912-1919, Professor Emeritus of Mathematics (oil painting by E. Wyly Grier), presented by members of the Board of Governors of the Senate and other friends.

44. A portrait of William Hodgson Ellis, M.A., M.B., LL.D., Dean of the Faculty of Applied Science and Engineering of the University of Toronto, 1914-1919, and Professor Emeritus of Applied Chemistry (oil painting by E. Wyly Grier), presented by the members of the staff of the Faculty of Applied Science and Engineering.

45. Fifteen water-colour sketches of Canada and Edinburgh by Sir Daniel Wilson, purchased by the Board of Governors.

46. A portrait of Chester Daniel Massey, a member of the Board of Governors of the University from 1906 until 1920 (oil painting by F. H. Varley), presented to the University by the Board of Governors.

47. A collection of engravings of Old Montreal, done by the late Mr. Learmont, from paintings by H. Bunnett, and presented by Mrs. Learmont, of Montreal.

48. A portrait of Professor Irving Heward Cameron, M.B., LL.D., Professor of Surgery in the University of Toronto, 1897-1920 (oil painting by F. H. Varley), presented to the University by the graduates of the Faculty of Medicine.

UNIVERSITY STUDIES.

The following is a list of studies published up to January, 1921:

HISTORY AND ECONOMICS.

Review of Historical Publications relating to Canada, edited by Professor GEORGE M. WRONG and H. H. LANGTON. Vol. I.-XXII, Publications of the years 1896-1917.	
Vols. 2, 3, 5-18 (in cloth), each	\$1.50
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The Review of Historical Publications has ceased to appear, being merged in a new publication, The Canadian Historical Review, a quarterly, annual subscription	
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 - (b) How to Think.
 - (c) The Training of the Memory.
 - (d) The Training of the Imagination.
 - (e) Life's Problems and Life's Ideals (Individual and Social).

Maurice Hutton, M.A., LL.D.

1. The Roman, Greek, Englishman and Frenchman (2 lectures or 1).
2. The Mind of Herodotus (2 lectures or 1).
3. The Women of Greece.
4. Some Oxford Types.
5. The Art of Lewis Carroll (the author of "Alice in Wonderland")
6. The British and German Mind.
7. British and German Affinities.
8. Kipling (2 lectures or 1).
9. A Traveller's Notes in Greece.
10. In Paris.
11. Statesmen of Athens.
12. Hellenism.

W. T. Jackman, M.A.

1. Government *versus* Private Ownership and Operation of Railways
2. The Present Position of the Government Railways in Canada.
3. The Place of the Motor Truck as a Transportation Agency.
4. The Financing of the Farmer's Requirements.
5. The Marketing of Farm Products.
6. Principles underlying Successful Co-operation of Farmers.
7. Importance of Shipping in the Development of Foreign Trade.

F. C. A. Jeanneret, B.A.

1. Brieux and the Modern French Drama.

G. M. Jones, B.A.

1. The Imperial Conference.
2. The Growth of Democracy in Great Britain.
3. The Romance of Canadian History (Illustrated).
4. Tennyson's "In Memoriam."

D. R. Keys, M.A.

1. American Humour—Its Genesis and Exodus.
2. King Alfred the Great.
3. Chaucer and his Times (Illustrated).
4. The English Novel as a Guide to Conduct.
5. Folk Lore.
6. The Modern Novel.
7. Toronto—Past, Present, and Future.
8. World Problems of Our Day.

R. S. Knox, M.A.

1. Scottish Poetry.
2. The English Drama of To-Day.
3. John Masefield.
4. The plays of John Galsworthy.
5. Scottish Humour
6. The Development of the English Theatre.
7. Shakespeare's England.
8. Some Poets of To-day.

Miss A. L. Laird, M.S.

1. Malnutrition in Children (Illustrated).
2. Vitamins (Illustrated).
3. Vegetables and Fruits—a Road to Health (Illustrated).
4. The Dietition in the Home (Illustrated).
5. Food—a Factor in National Development (Illustrated).

W. B. Lane, M.A., Ph.D.

1. Pragmatism and Idealism (one lecture, or a series).
2. Ethical Features of the Modern Flux Philosophy (Bergson) (one lecture, or a series).
3. Ethics of Kant (or J. S. Mill or Green) (one lecture, or a series).
4. Nietzsche's Immoralism (one lecture).

R. M. MacIver, M.A., D.Phil.

1. The Present Economic Situation.
2. The Wealth of a Nation.
3. Evolution away from War.
4. Selective Agencies in Modern Society.
5. The Formation of Public Opinion.

6. One or a series of lectures on Nationality, including such subjects as its meaning, historic developments, dangers, the place of internationalism, etc.
7. One or a series of lectures on the problems and tasks of Representative Government.
8. One or a series of lectures on fundamental economic questions, such as capital and labour, the wage system, the production of wealth and the distribution of wealth, the relation of wealth and poverty, the conservation of wealth in Canada, etc.

H. S. McKellar, B.A.

1. Dr. Drummond, the Habitant Poet—a biographical sketch, his appreciation of the French-Canadians, with the reading of some of his best poems (50 to 75 minutes, as desired).
2. A Glimpse of Paris—50 lantern slides, with a brief historical and literary background (60 to 75 minutes, as desired.).
3. Victor Hugo—with or without lantern slides (one hour).
4. French Wit and Scotch Humour—A short study in national characteristics (one hour).

J. F. McLaughlin, B.A., D.D.

1. History and Monuments of Ancient Egypt.
2. History and Monuments of Ancient Mesopotamia.
3. Mohammed and his Koran.
4. Poetry and Religion of the Arabs.
5. The Hebrew Prophets.
6. The Hebrew Poets.
7. Modern Movements and Changes in Palestine.
(Nos. 1, 2, and 7 can be illustrated. Nos. 5 and 6 can be given in short courses of five or six lectures).

H. McTaggart, M.A.

1. The Study of Crystal Structures by means of X-rays.
2. Colour Photography (Illustrated).

M. Moraud, L. és L., Agrégé De L'Université.

1. Some Aspects of Parisian Life.
2. School Life in France.
3. University Life in France.
4. The French Press.
5. The Political Parties in France.
6. The French Foreign Policy.

G. H. Needler, B.A., Ph.D.

1. Germany before the Great War.
2. What has happened to Germany.

3. Series of Lectures on Periods or Authors in German Literature.
4. Goethe's Relations to Scott, Byron, Carlyle and other English Writers.

W. Pakenham, B.A., LL.D.

1. The Ontario School of Sixty Years Ago.
2. The Physical Well-Being of Pupils.
3. Schools of To-morrow.
4. A Citizen of London in 1660.

J. H. Parkin, B.A.Sc., M.E.

1. Aviation in Canada.

W. A. Parks, Ph.D.

1. The Great Fossil Reptiles of Alberta (Illustrated).
2. The Origin and Development of the Mammalia (Illustrated).
3. Northern Ontario, Geological Geography (Illustrated).
4. Trilobites—an Extinct Race (Illustrated).
5. The Development of the Science of Geology.
6. The Surficial Geology of Ontario.

G. D. Porter, M.B.

1. Health Promotion.
2. Tuberculosis and Public Health.

P. Sandiford, M.Sc., Ph.D.

1. The Measurement of Intelligence (1 to 6 lectures with demonstrations).
2. The Psychology of Childhood (1 to 6 lectures).
3. The Original Nature of Man (1 to 6 lectures).
4. The Psychology of School Subjects (1 to 6 lectures).
N.B.—Professor Sandiford would prefer a course of lectures to single lectures.

C. B. Sissons, B.A.

1. Co-operation in Theory and Practice.
2. Peculiar Peoples in the Canadian West.
3. The Empire in Ancient and Modern Times.
4. Socrates, Teacher and Citizen.

H. B. Sifton, M.A.

1. Poisonous Plants (Illustrated—one or series of lectures).
2. Poisonous Seeds in Feeds (Illustrated—one lecture).
3. Weeds (Coloured Illustrations—one lecture).

G. O. Smith, M.A.

1. The Roman Occupation of Britain, one lecture (Illustrated).
2. The Roman Occupation of Britain, a course of three lectures, two of them illustrated.
3. Memoirs and Letters of an English Family in the 17th Century.

R. B. Thomson, B.A.

1. Insectivorous Plants (Illustrated—one lecture).
2. Plant Breeding (Illustrated—one, or several lectures).
3. Botanic Gardens and Their Value to the Public (one lecture).
4. Sphagnum (peat-bog moss) for Surgical Dressings (one lecture).

W. S. Wallace, M.A.

1. The Growth of Canadian National Feeling (one lecture, or a course of lectures).
2. The First White Men in America (one lecture).

J. S. Will, B.A., Ph.D.

1. Mediaeval Saints and Modern Sinners (a lecture on religion in France).
2. France of To-day and Yesterday.
3. Renaissance and Reform (one or more lectures)
4. French Painters (Illustrated).
5. Illustrious French Women (one or more lectures).
6. Intellectual Liberty.
7. French Thought in the Nineteenth Century
8. Canada's Debt to France.

W. D. Woodhead, M.A., Ph.D.

1. Charles Lamb.
2. The Case for Greek.

C. R. Young, B.A.Sc.

1. Achievements of Engineering.
2. Evolution of Transportation.
3. Triumphs of Bridge Building.

UNIVERSITY EXTENSION.

The following statute relating to University Extension work was passed by the Senate in April, 1894:

1. A standing committee of seven members of Senate shall be appointed annually for the purpose of carrying on "University Extension" work of a kind similar to that carried on under the same designation in connection with the Universities of Cambridge and Oxford.

2. The committee shall have authority to appoint a secretary, define his duties and fix his remuneration.

3. No part of the expenses incurred for teaching and examining done at "local centres" of instruction, or for secretarial work done under the authority of the Committee, or for any other purpose connected with University Extension shall be a charge on the ordinary revenue of the University.

4. It shall be the duty of the Committee, subject to ratification by the Senate, to appoint teachers and examiners for approved or prescribed courses of study at local centres, and to grant certificates to such students as may have passed the final examinations in each course and complied with other conditions prescribed from time to time by the Committee.

5. It shall be the duty of the Secretary to keep a register, in which shall be entered the name and address of each student who obtains a certificate with a description of the course of study in which he has passed, and such other particulars as the Committee may from time to time order to be inserted.

CATALOGUE OF SPECIAL EVENTS, 1921-1922.

1921.

- Aug. 10-13—The third meeting of the Imperial Conference of Teachers' Associations held in the Buildings of the University of Toronto. Convocation Hall was the general meeting place, and other buildings were used as desired.
- Aug. 13—Special convocation, at which the degree of Doctor of Laws was conferred upon the following members of the Imperial Conference of Teachers' Associations:
- Sir Henry Reichel, M.A.,
Montague John Rendall, M.A.,
Alexander Moffat, M.A.,
Bernard Allen, M.A.
- Oct. 2—University sermon by Sir Robert Falconer.
- Oct. 5, 6, 7—The Pearson Kirkman Marfleet lectures delivered in Convocation Hall by Sir Robert Borden, G.C.M.G. The subject of these lectures was "An Introduction to the Study of Constitutional Development in Canada."
- Oct. 7—The inaugural address by Mr. Bertram Forsyth, Director of the Hart House Theatre.
- Oct. 9—University Sermon by Dr. Trevor Davies.
- Oct. 23—University Sermon by Bishop C. P. Anderson, Chicago.
- Nov. 1-5—
- A Night at an Inn, by Lord Dunsany.
Pantaloons—Sir James Barrie.
White Magic—Algernon Blackwood and Bertram Forsyth.
- These three plays by the Players' Club in Hart House Theatre.
- Nov. 1—Organ Recital by Mr. F. A. Mouré.
- Nov. 4—The opening of the Electrical Building, containing the Departments of Electrical and Civil Engineering and Applied Mechanics.
- Nov. 13—University Sermon by Canon F. G. Scott.
- Nov. 15—Organ Recital by Mr. F. A. Mouré.
- Nov. 20—University Sermon by Principal Bruce Taylor, Queen's University.

- Nov. 27—University Sermon by Rev. Dr. W. J. Clarke.
- Nov. 29—Organ Recital by Mr. F. A. Mouré.
- Dec. 4—University Sermon by Prof. Shailer Matthews, Chicago.
- Dec. 6-10—Candida—Bernard Shaw. The second performance of the season by the Players' Club in Hart House Theatre.
- Dec. 11—University Sermon by Rev. Dr. C. W. Gordon.
- Dec. 13—Organ Recital by Mr. F. A. Mouré.
- Dec. 22, 23, 24—The Chester Mysteries of the Nativity. Hart House Theatre.
- Dec. 28—Special Convocation, at which the degree of Doctor of Science (*honoris causa*) was conferred upon the following members of the American Association for the Advancement of Science.
- William Bateson, M.A., D.Sc., F.R.S.,
Leland Ossian Howard, M.S., Ph.D.,
Eliakim Hastings Moore, Ph.D., LL.D., D.Sc.
- Jan. 3, 5, 6, 9, 10—A series of lectures by Professor William Bateson, F.R.S., on the subject of "Genetics and Heredity."
- Jan. 8—University Sermon by Dr. John R. Mott.
- Jan. 13—Lecture by Albert Ham, Esq., on "Modern Church Organ Music by English Composers."
- Jan. 15—University Sermon by Dr. George Pidgeon.
- Jan. 16—Lecture by Healey Willan, Esq., on "The Laws of Part Writing."
- Jan. 17-21—"Magic"—G. K. Chesterton. Fourth performance of the season by the Players' Club in Hart House Theatre.
- Jan. 17—Organ Recital by Mr. F. A. Mouré.
- Jan. 17—Lecture by Professor Hocking, of Harvard University, on "Philosophy and History."
- Jan. 18—Lecture by Professor P. D. Shastri, of Calcutta University, on "The Spirit of Eastern Philosophy."
- Jan. 19—Lecture by Professor Creighton, of Cornell University, on "Philosophy in the Eighteenth and Nineteenth Centuries: A Comparison."
- Jan. 20—Lecture by H. A. Fricker, Esq., on "The Form of Choral Music."
- Jan. 22—University Sermon, by Dr. C. E. Silcox.
- Jan. 23—Lecture by F. A. Mouré on "The Oratorio."
- Jan. 27—Lecture by Albert Ham, Esq., on "Old English Church Composers."
- Jan. 29—University Sermon by President Rush Rees, Rochester.
- Jan. 30—Lecture by Healey Willan, Esq., on "Diatonic (or secondary) Sevenths."
- Jan. 31—Organ Recital by Mr. F. A. Mouré.

- Feb. 3—Lecture by H. A. Fricker, Esq., on "Form in Choral Music."
- Feb. 5—University Sermon by Charles A. Eaton, Plainfield, N.J.
- Feb. 6—Lecture by F. A. Mouré on "Some Historical Particulars Regarding Beethoven's Sonatas."
- Feb. 9—Lecture by Albert Ham, Esq., on "Choral."
- Feb. 12—University Sermon by President W. D. Mackenzie, Hartford Seminary Foundation.
- Feb. 13—Lecture by Healey Willan on "The Harmonization of Unfigured Basses."
- Feb. 14—Organ Recital by Mr. F. A. Mouré.
- Feb. 16—Lecture by Albert Ham on "Church Cantatas."
- Feb. 19—University Sermon by Principal R. Bruce Taylor.
- Feb. 20—Lecture by F. A. Mouré on "The 18th Century Italians."
- Feb. 21-25—"Playbills," A Georgian Revue, arranged by Bertram Forsyth, and acted by the Players' Club in Hart House Theatre.
- Feb. 24—Lecture by H. A. Fricker, Esq., on "Orchestration in Choral Music."
- Feb. 26—Universal Day of Prayer.
- Feb. 27—Lecture by Healey Willan, Esq., on "Chromatic Chords."
- Feb. 28—Organ Recital by Mr. F. A. Mouré.
- Mar. 5—University Sermon by J. C. Roper, Ottawa.
- Mar. 6—Lecture by F. A. Mouré, on "The Modern French School."
- Mar. 10—Lecture by H. A. Fricker, Esq., on "Orchestration in Choral Music."
- Mar. 12—University Sermon by Bishop F. J. McConnell, Pittsburgh.
- Mar. 13—Lecture by Healey Willan on "Counterpoint—Combined Species."
- Mar. 14—Organ Recital, by Mr. F. A. Mouré.
- Mar. 19—University Sermon by Dr. G. A. Johnson Ross, New York.
- Mar. 27—Lecture by Healey Willan on "Double Counterpoint."
- Mar. 21-25—"Rosmersholm"—Henrik Ibsen. The sixth performance of the season by the Players' Club in Hart House Theatre.
- Mar. 28—Organ Recital by Mr. F. A. Mouré.
- Apr. 18-22—"The God of Gods," by Carroll Aikins. The seventh performance of the season by the Players' Club in Hart House Theatre.
- June 6-10—"The Tempest." The eighth performance of the season by the Players' Club in Hart House Theatre.
- June 8—Special convocation in Convocation Hall, at which the following degrees were conferred:

Doctor of Laws.

His Excellency the Right Honourable Sir Auckland
Geddes, K.C.B., P.C., M.D.
The Honourable William Lyon Mackenzie King, C.M.G.,
M.A., LL.B., Ph.D.
The Right Honourable Lyman Poore Duff, P.C., B.A., LL.B.
His Excellency Sao-Ke Alfred Sze.
The Honourable William Melville Martin, B.A.
The Reverend Henry Carr, B.A.
George Crofts, Esq.
Edward Peace Davis, Esq., B.A.
John Henderson, Esq., B.A.
The Reverend Charles Allen Seager, M.A., D.D.

Doctor of Medicine.

James Huerner Mullin, Esq., M.B.

Doctor of Science.

Arthur Philemon Coleman, Esq., M.A., Ph.D., F.R.S.
Archibald Byron Macallum, Esq., M.D., Ph.D., D.Sc.,
LL.D., F.R.S.

Doctor of Letters.

Henry Rushton Fairclough, M.A.

Doctor of Music.

Ferdinand Albert Mouré, Esq.

Doctor of Veterinary Science.

Charles Duncan McGilivray, Esq., V.S., M.D.V.

UNIVERSITY OF TORONTO ASSOCIATIONS AND SOCIETIES.

1921-1922.

THE ALUMNI FEDERATION OF THE UNIVERSITY OF TORONTO.

In the majority of the Faculties and Colleges of the University there are associations of alumni. These are united in the Alumni Federation of the University of Toronto. The Federation has numerous branches throughout Canada and the United States, and publishes a monthly periodical known as *The University of Toronto Monthly*.

President—The Hon. Mr. Justice Masten.

Vice-President—Angus MacMurchy.

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HART HOUSE.

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Hall Committee—J. M. D. Olmsted, P. Gillespie, G. A. Cornish, S. S. English, Med., M. R. McGarvey, Med., J. L. McFadden, Med., K. C. McCarthy, Med., J. R. Birch, Med., M. G. de Souza, Med., J. A. Langford, Sc., A. W. McQueen, Sc., J. Gillmor, Sc., G. N. Black, Med., Secretary.

FACULTY UNION.

Organized 1901.

Officers.

President—Sir Robert Falconer, K.C.M.G.

Secretary—G. A. Cornish.

House Committee—G. A. Cline, G. H. Duff, K. B. Jackson, A. McLean, I. R. Pounder, R. B. Thompson.

STUDENTS ADMINISTRATIVE COUNCIL.

The Students Administrative Council has developed from the Parliament of Undergraduates which was organized in 1905 with a large membership to afford students of all the Colleges and Faculties the privilege of discussing in open debate questions of interest to them. During the last few years the membership of the Parliament has been reduced as the work became more executive. The Council, as now recognized by the University authorities, has the following duties:—

To represent the students on all public occasions and in all matters pertaining to their interests.

To afford a recognized means of communication between the students and the University or Civic authorities.

To promote inter-university relationships and to cultivate a University "esprit de corps" among the students of all Colleges and Faculties.

An important step in the growing power of the Council was accomplished during the Session 1914-15, when the Caput of the University delegated to the Council full authority to deal with all matters concerning student discipline within the University.

Another innovation is the Students' Council fee, collected by the Bursar, for the use of the Council. This makes possible the employment of a salaried permanent secretary and provides a working capital by means of which a greater efficiency in the management of the various organizations can be attained.

The Council is responsible for Theatre Night, the Glee Club, the University Musical Society, and Inter-University Debating, and jointly responsible with the Women Students Administrative Council for the publication of THE VARSITY, TORONTONENSIS, and the STUDENTS' DIRECTORY.

Students' Administrative Council Officers, 1921-22.

<i>President</i> , John Lowe, B.A.	Medicine: E. G. Fleming, D. St.
<i>Vice-President</i> , F. Lorne Hutchison.	J. Wagle, M. M. Fisher, D. M.
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<i>"Varsity" Representative</i> , Eric Druce.	Applied Science: F. A. Murphy, W. A. Osbourne, H. L. Norman.
<i>"Torontonensis" Representative</i> , J. M. Luck.	Dentistry: R. Dunlop (Pres. Dental Parliament), J. R. Parrott, L. A. Kilburn.
<i>Representative Board of Stewards of Hart House</i> , J. A. Langford.	Ontario Veterinary College: E. Rowe.
<i>Convenor Students' Court</i> , H. G. Thompson.	Wycliffe College: E. L. Wasson.
<i>Convenor Musical Organizations</i> , W. A. Paul.	Ontario College of Pharmacy: J. M. Wylie.
<i>Convenor Literary Organizations</i> , E. B. Harshaw.	Forestry: Eric Druce.
University College: W. G. Mac-Namara, L. F. Waldron, C. S. Gulston, C. S. Haines.	Education: B. Smillie, B.A.
Victoria College: A. E. T. Gilroy, W. G. Flavelle.	Knox: L. R. Ballantyne, B.A.
Trinity College: E. B. Harshaw.	Vice-President Athletic Directorate: J. W. Douglas.
St. Michael's College: L. J. Stock.	President Federal Exec. U. of T. Y.M.C.A.: H. A. MacMillan.

WOMEN STUDENTS' ADMINISTRATIVE COUNCIL, 1921-22.

Executive.

<i>President</i> , Miss A. L. Maybee, U.C.	<i>"Torontonensis" Rep.</i> , Miss W. C. Collins, St. Michael's.
<i>Vice-Pres.</i> , Miss E. Gallaway, Vic.	<i>Medical Rep.</i> , Miss G. Baker.
<i>Varsity Rep.</i> , Miss G. Gladman, Trin.	<i>Gen. Sec.-Treas.</i> , Miss A. E. M. Parkes, B.A.

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THE VARSITY.

<i>Editor-in-Chief</i> , Eric Druce.	<i>Sporting Editors</i> , M. Stewart, Miss R. Whittington.
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WOMEN'S PRESS ASSOCIATION.

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<i>Secretary-Treas.</i> , Miss M. McLean, '22.	Alumnae, Miss E. R. Cringan, '21.

TORONTONENSIS BOARD, 1921-22.

<i>Editor-in-Chief</i>	E. L. Wasson.
<i>Business Manager</i>	F. C. Hastings, B.A.

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University College: H. E. Saunders, H. C. Rickaby, Miss C. H. Keens.	Medicine: J. A. McFarlane, R. H. Morris, J. H. Johnson, Miss M. Tom.
Victoria College: Miss Frieda Daly, Mr. Harvey Potter.	Applied Science: L. C. McMurry, G. F. Bryant, H. M. Digman.
Trinity College and St. Hilda's: Miss Ruth Burpee.	Dentistry: C. Ryan, Miss N. Mollins, R. Sims.
St. Michael's College: F. R. Simpson, F. T. McDermott, Miss Mary M. McCardle.	Forestry: J. L. VanCamp. Knox: I. McEown, B.A. Pharmacy: R. J. Leach.

YOUNG MEN'S CHRISTIAN ASSOCIATION.

The object of the Association is to lead the men in the University of Toronto to acknowledge Jesus Christ as Lord and Master, and to have them decide on a life's work in His name; to promote Christian character; to develop and train men for aggressive Christian work and service, and generally to promote the physical, mental and spiritual welfare of the student body.

Y.M.C.A. FEDERAL CABINET.

1921-22.

<i>President</i> , H. A. MacMillan,	<i>Assist. Treasurer</i> , W. McBain.
B.A.	
<i>1st Vice-Pres.</i> , G. Armstrong.	<i>General Secretary</i> , R. H. Rick-
<i>2nd Vice-Pres.</i> , S. F. Everson.	ard, B.A.
<i>Rec. Secretary</i> , E. I. Taylor	<i>Assist. Secretary</i> , B. G. Gray.

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Victoria College: S. N. F. Chant.	Pharmacy: J. Wylie.
Medical College: R. Neelands.	O.C.E.: B. S. Smillie, B.A.
Applied Science: T. S. Glover.	McMaster University: J. Tiffen.

Convenors.

<i>Study Groups</i> , S. F. Everson.	<i>Missionary Education</i> , A. Tay-
<i>Campus Service</i> , F. Spence.	lor.
<i>Boys' Work and Social Service</i>	<i>Publicity</i> , D. Burns.
E. I. Taylor.	

CANADIAN OFFICERS' TRAINING CORPS.

University of Toronto.

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<i>Medical Officer</i> , Major J. W.	(C.A.M.C.), Lieut. H. D. Del-
Barton, M.D., R. of O., C.E.	amere, Lieut. H. B. Lang.
<i>Quartermaster</i> , Lieut. V. C.	"C" Co., (App. Sc.), Major J.
Kerrison, late C.A.S.C., C.E.F.	R. Cockburn, M.C., Capt. W.
<i>Paymaster</i> , Lieut. T. A. Reed.	J. T. Wright, M.B.E., Lieut.
	B. H. Miller.
<i>Contingent Sergeant-Major</i> , S.-	<i>Attached from Can. Air Force</i> ,
M. W. Hunt, late Royal	Lieuts. H. F. Balmer, A. M.
Welch Fusiliers.	Duggan, K. P. Kirkwood.

THE UNIVERSITY OF TORONTO ATHLETIC ASSOCIATION.

The Athletic Association is now the paramount body in University athletics, and has entire jurisdiction over the athletic clubs using the University name, and over their finances, members and policy, subject to the University authorities. Henceforth no financial agreement can be entered into by any such club without the sanction of the Directorate. No expenditure of any kind in connection with any such club can be made without the written order of the Secretary-Treasurer of the Directorate.

Officers 1921-22.

<i>Hon. President</i> , Sir Robert Falconer.	<i>Physical Director</i> , J. W. Barton, M.D.
<i>President</i> , Prof. M. A. Mackenzie.	<i>Directors</i> , Professor C. H. C. Wright, A. F. Barr, M.A.; W. A. Dafoe, M.B.; G. D. Porter, M.D.; F. C. A. Houston, J. K. Bell, H. E. Hobbs, W. B. Ramsay.
<i>Vice-President</i> , J. W. Douglas.	
<i>Sec.-Treasurer</i> , T. A. Reed.	

Rugby Club Executive, 1921-22.

<i>Hon. President</i> , J. M. Breen, B.A.Sc.	<i>Sec.-Treas.</i> , L. E. Blackwell.
<i>Hon. Vice-Pres.</i> , W. E. Blatz, M.A.	<i>Assistant Secretary - Treasurer</i> , W. E. Bennett.
<i>President</i> , F. C. A. Houston.	<i>Manager</i> , H. A. MacLennan.
<i>Vice-President</i> , G. M. Purcell.	<i>Hon. Coach</i> , Dr. J. C. Maynard.

Track Executive, 1921-22.

<i>Hon. President</i> , F. J. Halbus.	<i>Vice-President</i> , G. F. Leigh.
<i>Hon. Vice-Presidents</i> , Dr. L. J. Sebert, Dr. W. E. Brown.	<i>Sec.-Treasurer</i> , J. E. Buchan.
<i>President</i> , L. D. Croll.	<i>Asst. Sec.-Treas.</i> , D. O'Donnell.
	<i>Provisional Manager</i> , ...

Soccer Club Executive, 1921-22.

<i>Hon. President</i> , F. C. A. Jeaneret.	<i>President</i> , A. G. Rintoul.
<i>Hon. Vice-President</i> , Prof. C. H. C. Wright.	<i>Vice-President</i> , H. E. Wingfield.
	<i>Sec.-Treasurer</i> , H. E. Spaulding.
	<i>Manager</i> , B. I. Johnstone.

Gymnasium Club Executive, 1921-22.

Hon. President, R. D. Huestis, *Vice-President*, P. J. Robinson
(B.A.Sc.). (Med. IV.).
Hon. Vice-President, G. R. Workman, *Sec. and Manager*, M. Wolsey
(Ap. Sc. III.).
President, S. Williams (Ap. Sc. IV.), *Captain of Team*, R. J. Williamson (Ap. Sc. III.).

Gymnasias.

The Physical Department has now five gymnasias. The main floor, 100 x 50 feet, is fitted up with the latest apparatus for all round class and individual work. The upper gymnasium 80 x 40 feet, is known as the Games Rooms, where the interfaculty contests in basketball, indoor baseball and volley ball are played. The teams of the various faculties and colleges have practice hours allotted to them on this floor. There are also the three small gymnasias, each 50 x 30 feet for boxing, wrestling and fencing, respectively. These three rooms are also fitted up with basketball goals and afford extra practice floors in an emergency.

All the male students of the University are examined by the Physical Director and placed in categories according to their physical fitness. Some form of physical training is compulsory for every student of the first and second years. Students in Category "A," that is physically fit, can elect the form of exercise in which they wish to engage. Students in Category "B," (hardly up to "A" standard physically), can elect in the same manner, but are limited to certain forms of exercise as recommended by the Physical Director. Students in Category "C" must take the form of exercise recommended by the Physical Director.

Two gymnasium instructors are in attendance from 9 a.m. to 6 p.m. Classes are held at various hours throughout the day. The Swimming Instructor is in attendance at the pool from 9 a.m. to 6 p.m. Swimmers may use the pool at any time. Non-swimmers must attend at the hours set for them. Students may consult the Physical Director on all matters pertaining to their health.

The Gymnasium Fee is now merged in the Hart House Fee of Ten Dollars, payable to the Bursar, and compulsory in all male students.

Basketball Club Executive, 1921-22.

President, W. H. Duffill (S.P.S. III.)
Vice-President, J. Lowe (Trin. IV.)
Secretary-Treas., H. H. Caple (Med. III.)

Boxing, Wrestling and Fencing Executive, 1921-22.

- Hon. President*, Prof. T. R. Loudon. *Secretary-Treasurer*, F. Seaborne.
Assistant Managers: Boxing, R. C. Relyea (S.P.S. III); Wrestling, J. R. Walton (For. III); Fencing, H. A. Oakes (S.P. S. IV).
President, G. W. Hewitt (U.C. III.)
Vice-President, W. S. Sherk.

Hockey Club Executive, 1921-22.

- Hon. Pres.*, Dr. A. B. Wright. *Vice-President*, A. B. Moore
Hon. Vice-Pres., P. F. McIntyre. (Trin. IV.)
President, E. N. Wright (U.C. III.) *Secretary-Treasurer*, P. Girvin (Dent. IV.)
Manager, R. T. Weaver (Med. III.)

Swimming Club Executive, 1921-22.

- President*, L. F. Waldron (U.C. III.) *Secretary-Treas.*, D. C. Wells (S.P.S. III.)
Vice-President, A. A. Bell (S. P.S. III.) *Manager*, L. E. Blackwell (U. C. II.)
Captain of Polo Team, Frank Wood (Dent. II.)

Tennis Club Executive, 1921-22.

- Hon. President*, Sir Robert Falconer. *Vice-President*, E. M. Little.
Hon. Vice-President, Professor Hooke. *Secretary*, E. C. Guillet.
President, H. G. Wales. *Chairman of Tournament Committee*, W. V. Crossen.

Lacrosse Club Executive, 1921-22.

- Hon. President*, F. D. McClure (Dent. IV.) *Secretary-Treasurer*, F. Wilcox (Med. III.)
President, J. C. McClelland (Med. V.) *Manager*, H. E. Firth (S.P.S. III.)
Vice-President, J. B. Bastedo (U.C. III.) *Executive*, G. S. Williamson, R. L. Gauld (Med. III.), T. L. Wilson (U.C.)

Harrier Club Executive, 1921-22.

- Hon. President*, Dr. E. H. Campbell. *President*, G. F. Leigh, (Wyc. II.)
Hon. Vice-President, Rev. P. J. Dykes. *Vice-Pres.*, L. D. Croll (Med. III.)
Secretary-Treasurer, A. Brodey (U.C. III.)

Indoor Baseball Club Executive, 1921-22.

President, J. H. Westren (Ap. Sc. IV.) *Secretary*, J. A. Ford (St. M. IV.)
Vice-President, E. G. Reburn (U.C. III.) *Assistant Secretary*, O. L. Stanton (U.C. III.)

Rowing Club Executive, 1921-22.

Hon. Presidents, W. E. Douglas, B.A.; H. F. Gooderham, B.A. *Secretary*, I. Campbell (Med. II.)
President, G. B. Beatty (U.C. III.) *Executive Committee*, A. A. Bell (Ap. Sc. III); G. W. Smart (Ap. Sc. II); R. H. Morris (Med. V.)
1st Vice-President, N. G. Tuford (Med. IV.)
2nd Vice-President, J. D. Smith (Ap. Sc. I.) *Honorary Coach*, Prof. T. R. Loudon.
Manager, F. S. Spence (Ap. Sc. IV.)

THE PLAYERS' CLUB.*Technical Staff.*

Stage Manager, Alan Coventry. *Chief Electrician*, A. M. Johnston.
Business Manager, R. S. Burns. *Master Carpenter*, J. Cowan.
Director of Music, Healey Wil- *Master of Properties*, D. D. Mackay.
 lan.

Syndics.

E. A. Dale (President).	G. F. McFarland (Treasurer).
J. B. Bickersteth.	Alice Vincent Massey.
Alan Coventry.	Leslie Reid (Hon. Sec.)
George De T. Glazebrook.	J. D. Robins.
George H. Locke.	Colin Tait.
Vincent Massey.	Dixon Wagner.

Officers.

Director Bertram Forsyth.
Secretary E. O. Mitchell.

MATHEMATICAL AND PHYSICAL SOCIETY, 1921-22.

Hon. President, Professor A. T. DeLury, M.A. *Secretary*, Miss E. F. M. Bannister, '23.
President, H. W. Dewey, '22. *Treasurer*, M. I. Doxsee, '24.
Vice-President, M. S. Bell, '23. *Cor. Secretary*, Miss M. B. Kearney, '22.

Representatives

Fourth Year: Miss I. L. Pater- Second Year: Miss M. C. W.
son. Buffam.
Third Year: J. P. Dandy. First Year: Miss E. E. Sutton.

CHESS CLUB.

Hon. President.... James Mavor. *Secretary*..... J. P. Dandy.
President A. C. Thrupp.

Representatives

Staff, F. A. Mouré. *Medicine*, D. H. Running.
Graduate, R. G. Hunter. *Dentistry*, R. V. Weston.
Applied Science, C. E. Lewis.

COMMERCE AND FINANCE CLUB OFFICERS, 1921-22.

President, A. J. Curry, IV. *Secretary*, H. B. Wheaton, IV.
Vice-President, F. A. L. Wood- *Treasurer*, W. G. Booth, II.
land, IV.

OFFICERS OF THE MENORAH SOCIETY.

Hon. President, Prof. D. R. *Treasurer*, J. M. Stuchen, B.A.
Keys, M.A. (Law).
Advisor, Rabbi B. R. Brickner, *Med. Rep.*, S. J. Levin (Med.)
Ph.D. *U. C. Rep.*, Miss E. Sadowski
President, B. Fox (Law). (Arts).
1st Vice-Pres., J. H. Greenberg *U. C. Rep.*, S. Smith (Arts).
(Med.) *U. C. Rep.*, H. Bennett (Arts).
2nd Vice-Pres., Miss T. Lavine *Dental Rep.*, B. Garfield (Dent.)
(Arts). *Osgoode Rep.*, B. Caplan (Law).
Sec., Miss R. Levi, B.A. (Soc. *Ex.-Pres.*, D. Eisen (Med.)
Service). (Ex-Pres. of the previous
Cor. Secretary, H. Landsberg year only sits at the council
(Dents.) meetings.)

UNIVERSITY COLLEGE STUDENTS SOCIETIES.

1921-22.

YOUNG MEN'S CHRISTIAN ASSOCIATION.

The Association was organized in 1873 and incorporated in 1892.

The objects of the Association are:

To unite the men of the Institution for the maintenance of a positive moral and religious atmosphere.

To develop and conserve in all our men a complete Christian manhood.

To lead them to become disciples of Jesus Christ in life and service.

To lead them to unite with and promote the Christian Church.

To enlist them in the extension of Christ's Kingdom throughout the world.

Membership in the Christian Association consists of all those in the College who approve of the objects of the organization and declare it their purpose to live and work for the extension of the Kingdom of Righteousness among men, especially the men of this College.

Officers 1921-22.

<i>Hon. President,</i> Prof. W. R. Taylor.	<i>Vice-President,</i> K. P. Kirkwood.
<i>President,</i> A. A. MacKenzie.	<i>Secretary</i> A. Gillies.
	<i>Treasurer</i> J. Hutton

Convenors.

<i>Study Groups.</i> ...A. H. Vaughan.	<i>Community Service,</i> E. J. Mc-
<i>Campus Service</i> H. Lennox.	Girr.
<i>Missionary</i> A. Taylor.	<i>Publicity</i> W. B. Mitchell.

WOMEN'S STUDENT CHRISTIAN MOVEMENT.

<i>President,</i> Margaret J. Jamieson.	<i>Convenors</i> —Jessie Macpherson,
<i>Secretary</i> Genevieve Brock.	Isabel Paterson, Katherine
<i>Treasurer</i> Beatrice Reid.	Rutherford, Mary Buffam,
	Olive Hetherington.

LITERARY AND ATHLETIC SOCIETY.

<i>Governor.</i> Principal M. Hutton	
<i>Hon. President,</i> Professor C. N. Cochrane.	<i>Secretary</i> John L. Wilson.
<i>President,</i> F. Lorne Hutchison.	<i>Assist. Sec.</i> C. A. Harrison.
<i>1st Vice-Pres., (Athletic Director),</i> G. M. Purcell.	<i>Treasurer</i> A. L. Pidgeon.
<i>2nd Vice-Pres., (Social Director),</i> D. F. MacLaren.	<i>Councillors</i> —R. Ryrie, S. G. Robertson, T. L. Cross, E. G. Smith.

WOMEN'S LITERARY SOCIETY.

Executive 1921-22.

<i>Hon. President</i>	Miss Wookey	<i>Treasurer</i> . .	Elizabeth Walton
<i>President</i> . .	Mary Needler	<i>4th Year Rep.,</i>	Marian Maitland
<i>Vice-President</i>	Helen McLean	<i>3rd Year Rep.</i>	Kitty Fisher
<i>Critic</i>	Margaret Rosebrugh	<i>2nd Year Rep.,</i>	Dorothy Hamp-
<i>Rec. Sec.</i> . .	Jean MacFarlane	son.	
<i>Cor. Sec.</i> . .	Grace West	<i>1st Year Rep.,</i>	Winifred Talbot

WOMEN UNDERGRADUATES' ASSOCIATION.

<i>Hon. Pres.,</i>	Miss M. M. Waddington.	<i>Head Girl of Queen's Hall,</i>	Miss G. Bell.
<i>President</i>	Miss A. Macdonald	<i>Secretary</i>	.. Miss C. Grant
<i>Vice-Pres.</i>	.. Miss G. Shanley	<i>Treasurer</i>	.. Miss K. Ball

CLASS SOCIETIES.

1922.

<i>President</i> . .	Ross Ryrie	<i>Athletic Directress,</i>	Miss H. W. Morson.
<i>Vice-Pres.</i> .	Miss J. A. Wilson	<i>Athletic Director,</i>	W. H. Sparrow.
<i>Secretary</i> .	R. A. Stewart	<i>Lady Councillor,</i>	Miss M. Moran
<i>Treasurer</i>	G. L. Fair	<i>Gentleman Councillor,</i>	H. B. Matchett.
<i>Musical Directress,</i>	Miss K. G. Cordingly.		
<i>Scribe</i> .	Miss J. J. McCullough		

Permanent Executive.

<i>President</i> . . .	F. L. Hutchison	<i>Lady Councillor,</i>	Miss A. H. G. Macdonald.
<i>Vice-Pres.,</i>	Miss A. M. H. Brown	<i>Gentleman Councillor,</i>	R. Ryrie
<i>Sec.-Treas.</i>	R. A. Stewart		

1923.

<i>President</i> ... S. G. Robertson	<i>Lady Councillors</i> , Miss M. J.
<i>Vice-Pres.</i> ... Miss V. A. Taylor	Fawcett, Miss M. R. Thomas.
<i>Secretary</i> , Miss J. H. Sinclair	<i>Gentlemen Councillors</i> , D. K.
<i>Treasurer</i> ... J. W. Taylor	Findley, F. C. Whitaker.
<i>S. A. C. Rep.</i> ... L. F. Waldron	

1924.

<i>President</i> ... F. L. Cross	ford, Miss Muriel Zybach, Mr.
<i>Executive</i> — Miss Dorothy	W. B. Mitchell, Mr. J. L. Grif-
Weatherhead, Miss Kathleen	fith, Mr. E. C. McCullagh,
McConnell, Miss Marion Mc-	Mr. C. S. Gulston, Mr. J. S.
Laren, Miss Helen Ruther-	Tory, Mr. W. M. Penman,
	Mr. J. E. Pritchard.

1925.

<i>President</i> ... E. G. Smith	<i>Historian</i> ... Miss H. Brown
<i>1st Vice-Pres.</i> , Miss N. Denoon	<i>Prophetess</i> ... Miss E. McHenry
<i>2nd Vice-Pres.</i> ... J. Porter	<i>Lady Councillor</i> , Miss M. Tilley
<i>Secretary</i> ... S. A. Snyder	<i>Gentleman Councillor</i> , A. Leary
<i>Treasurer</i> ... C. T. Thompson	

CLASSICAL ASSOCIATION.

Executive Committee, 1921-22.

<i>Hon. President</i> Prof. D. Duff	<i>4th Year Councillor</i> , Miss M. J.
<i>President</i> , H. W. Johnston, '22	Pearl, '22.
<i>Vice-President</i> , L. A. MacKay,	<i>2nd Year Councillor</i> , Mr. T. J.
'23.	Vahey, '24.
<i>Treasurer</i> ... D. J. Day, '23	<i>1st Year Councillor</i> , Miss
<i>Secretary</i> ... E. G. Lee, '24	Stubbs, '25.
<i>1st Year Councillor</i> , Mr. Bhaer, '25.	

MODERN LANGUAGE CLUB.

<i>Hon. President</i> , Prof. St. Elme	<i>Treasurer</i> Mr. N. P. H. Brown
de Champ.	<i>Business Manager</i> , Miss D. E.
<i>President</i> , Miss Dorothy Arthur	Stacey.
<i>Vice-Pres.</i> ... Miss Rhoda Bird	<i>Cor. Secretary</i> , Miss I. K. Watt
<i>Secretary</i> , Miss H. Hethering-	<i>1st Year Reps.</i> , Miss Doris
ton.	Johnston, Mr. John Mac-
	Naught.

WOMEN'S ATHLETIC ASSOCIATION.

Hon. Pres. . . . Miss H. Bryans *Sec.-Treas.*, Miss H. Maclellannan
President. .. . Miss G. Stanley *Rep. to Directorate*, Miss H.
Vice-Pres. Miss H. Morson Morson.

Curators.

Basketball . Miss E. Doran *Swimming* . . Miss M. Tanton
Gymnasium . Miss M. Sherrin *Tennis* Miss D. Wood
Hockey Miss M. Dow

Club Representatives.

Basketball . Miss J. Cameron *Swimming* . . . Miss A. Hunter
Gymnasium Miss M. Asman *Tennis* . Miss A. Macdonald
Hockey .. . Miss M. Thomas

VICTORIA COLLEGE STUDENT SOCIETIES.

THE VICTORIA MEN'S COUNCIL.

<i>President</i> , A. E. T. Gilroy, '22	<i>Councillors</i> —W. G. Scott, B.A.,
<i>Vice-Pres.</i> J. M. Luck, '22	W. G. Flavelle, '23, N. J. Endicott, '24, C. M. Stewart, '25,
<i>Secretary</i> J. E. R. Doxsee, '23	R. E. Southcott, Theol.
<i>Treasurer</i> , R. MacDonald, Theol.	

WOMEN UNDERGRADUATES' ASSOCIATION.

<i>President</i> . . E. Gallaway, '22	<i>3rd Year Rep.</i> , M. D. VanLoven,
<i>Vice-Pres.</i> . . M. I. Hanna, '22	'23.
<i>Secretary</i> . . M. Taylor, '23	<i>2nd Year Rep.</i> , M. M. Wingfield,
<i>Treasurer</i> , M. R. Patterson, '24	'24.
	<i>1st Year Rep.</i> , M. G. Stinson, '25.

UNION LITERARY SOCIETY.

Fall Term.

<i>President</i> A. E. T. Gilroy, '22
<i>Vice-President</i> , J. A. C. Kell, '23
<i>Critic</i> . . E. P. Congdon, B.A.
<i>Leader of Govt.</i> , J. M. Luck, '22
<i>Secretary</i> A. W. Scott, '24
<i>Treasurer</i> . I. G. Perkins, '23

Spring Term.

<i>President</i> J. M. Luck, '22
<i>Vice-Pres.</i> . . S. J. Mathers, '23
<i>Critic</i> . . D. M. Stinson, M.A.
<i>Leader of Govt.</i> , H. E. Hazlewood, '23.
<i>Secretary</i> , H. A. Hollinrake, '24
<i>Treasurer</i> . . . J. F. Nelson, '23

WOMEN'S LITERARY SOCIETY.

<i>President</i> , S. G. Armstrong, '22	<i>Secretary</i> . . . I. F. Irwin, '24
<i>Vice-Pres. of Public Speaking</i> , A. M. Uren, '22.	<i>Treasurer</i> . . B. E. Lyons, '23
<i>Vice-Pres. of Literary Department</i> , F. D. Daly, '22.	<i>Publicity Manager</i> , M. H. Sissons, '24.
<i>Vice-Pres. Current Events</i> , J. H. Harris, '23.	<i>Critic</i> , J. V. McClenaghan, '22
	<i>Pianist</i> . . G. L. Norman, '25

VICTORIA COLLEGE ATHLETIC CLUB.

<i>Hon. President</i> , Mrs. C. B. Sissons.	<i>Hockey Curator</i> , M. B. Oaks, '22
<i>President</i> - G. E. Wallis, '22	<i>Swimming Curator</i> , E. B. MacGillivray, '23.
<i>Secretary-Treas.</i> , E. M. Chisholm, '23.	<i>Hockey Captain</i> , M. Howitt, '22
<i>Basketball Curator</i> , M. V. Hogarth, '23.	<i>4th Year Rep.</i> , M. A. Everson, '22.
<i>Tennis Curator</i> , H. W. Snider, '23.	<i>3rd Year Rep.</i> , F. B. Greene, '23
	<i>2nd Year Rep.</i> , M. Fenwick, '24
	<i>1st Year Rep.</i> , H. E. Uren, '25

ACTA VICTORIANA.

Editorial Staff, 1921-22.

<i>Editor-in-Chief</i> , J. C. Eastcott, B.A.	<i>Athletics Editors</i> , Miss B. E. Lyons, '23; J. R. Hamilton, '23.
<i>Literary Editors</i> , Miss A. M. Uren, '22; A. E. T. Gilroy, '22.	<i>Locals Editors</i> , Miss P. L. Morgan, '23; R. G. Start, '23.
<i>Personals and Exchanges</i> , Miss M. V. Ray, '22; J. G. Endicott, '23.	<i>Scientific Editor</i> , J. M. Luck, '22.
<i>Local Events Editors</i> , Miss E. Howard, '23; J. A. C. Kell, '23.	<i>Missionary and Religious</i> , E. P. Congdon, B.A.

Board of Management.

<i>Business Manager</i> , D. F. Gibson, B.A.	<i>Circulation Managers</i> , S. J. Mathers, '23; Miss J. H. Harris, '23.
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Advisory Board.

Professor C. E. Auger, B.A.	George H. Locke, M.A., Ph.D.
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VICTORIA COLLEGE STUDENT CHRISTIAN ASSOCIATION.

<i>President</i> . S. N. F. Chant, '22	<i>Missionary</i> , E. P. Congdon, B.A., Miss F. A. Fallis, '22.
<i>1st Vice-Pres.</i> , Miss K. Bennett, '22.	<i>Community Service</i> , E. C. Marr, '23, Miss L. Coburn, '23.
<i>2nd Vice-Pres.</i> , J. A. C. Kell, '23	<i>Bible Study</i> , J. G. Endicott, '23, Miss E. R. Whittington, '23.
<i>Secretary</i> , Miss P. L. Morgan, '23.	<i>Pres. Volunteer Band</i> , E. R. Hall, B.A.
<i>Treasurer</i> ... A. Hampson, B.A.	

VICTORIA COLLEGE ATHLETIC UNION.

Hon. Pres. . . . Professor Edgar *2nd Vice-Pres.*, R. E. Sutton, '24
President S. N. F. Chant, '22 *Secretary* . . . W. L. Webster, '23
1st Vice-Pres., J. R. Hamilton, *Treas.* R. de la P. Stewart, '22
'23.

GLEE CLUB.

Hon. President, Professor Horning.
President, H. F. Sanders, B.A. *Secretary* . . . F. R. Keffer, '23
Business Manager, M. A. Cayley, '23. *Librarian* . . . S. Kimura, B.A.
Reporter, H. E. Hazlewood, '23

VICTORIA COLLEGE CHORAL CLUB.

Hon. President, Mrs. A. E. Lang *Secretary*, D. G. Sheridan, '23
President H. F. Goodwyn, '22 *Publicity Officer*, L. E. Mundy,
Business Manager, A. M. Wright, '22. '24.
Librarian H. MacInnes, '25

VICTORIA COLLEGE ORCHESTRA.

Hon. President, Miss M. E. T. Addison, B.A.
Conductor, Mr. F. E. Blachford *Manager* . . . J. A. Campbell, '24
President . . . M. A. Cayley, '23 *Secretary* . Miss M. Howitt, '22
Vice-President, Miss A. M. Chisholm, '23. *Librarian*, Miss B. M. Fitzpatrick, '22.

THE COLLEGIANS' DEBATING CLUB.

Hon. President, A. E. T. Gilroy, *Treasurer*, E. A. Keenleyside,
'22. '25.
President . . . N. J. Endicott, '24 *Councillors*—R. E. Southcott,
Vice-President, E. M. Gundy, Theol., H. W. Stropp, Theol.,
'25. E. A. Daly, '24, A. G. Finnie,
'24, R. S. Mills, '25, G. F.
Secretary . . . W. H. Troop, '24 *Bannerman*, '25.

THE CLASSICAL ASSOCIATION.

President, T. R. S. Broughton, *Secretary*, Miss R. I. Jenking,
B.A. '25.
Vice-President, R. C. Cummings, *Treasurer*, Miss M. H. Sissons,
'23. '24.

DRAMATIC SOCIETY.

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SCRIBE OF EPISKOPON—1921-22.

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The Institute exists for the encouragement of debating, essay writing and reading. It meets on Friday evenings throughout the two terms. The fee is \$3.00 per annum and is payable with the College bills.

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THE REVIEW.

The "Trinity College Review" is published once a month throughout the academic year. The annual subscription is \$1.50, payable with the College bills.

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The Society meets every second Wednesday during the academic year (except April), beginning with the second Wednesday in October. Addresses are given by prominent men on subjects of general interest.

The Society is divided into six Clubs for the purpose of affording a medium of study of matters relating in particular to different branches of Engineering. Each of the Clubs holds its meetings at regular intervals. Papers are read and discussions held on engineering subjects.

The Society publishes an annual, called "Transactions," which contains the addresses given at the meetings and an account of the year's activities.

A Supply Department is conducted by the Society on a co-operative plan, through which instruments, draughting supplies, stationery, etc. can be purchased at a low cost.

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The Athletic Association has full control over all athletic clubs using the name of the Faculty of Applied Science. The Exegetive Committee has power to suspend any one from the privileges of membership in the Association for any breach of its regulations, and controls the finances of all athletic clubs in the aforesaid Faculty. The annual membership fee of this Association is one dollar.

No other moneys are collected for the support of athletics in the Faculty of Applied Science without the sanction of the Executive Committee.

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The object of the Chemical Club is to promote the study of industrial chemistry and chemical engineering. Illustrated lectures, preceded by an informal dinner and a short musical programme, are held fortnightly, and on the following day an excursion is made to industrial concerns located in the city or vicinity.

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The Club meets every Thursday during the academic year for the discussion of papers relating to mechanical and electrical engineering problems.

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The Club is the official organization representing the undergraduates of Departments 2 and 8 of the Faculty of Applied Science.

The objects of the Club are to promote the spirit of good fellowship and mutual assistance amongst its members, both graduate and undergraduate, to provide a means of meeting together, and for the discussion of pertinent topics.

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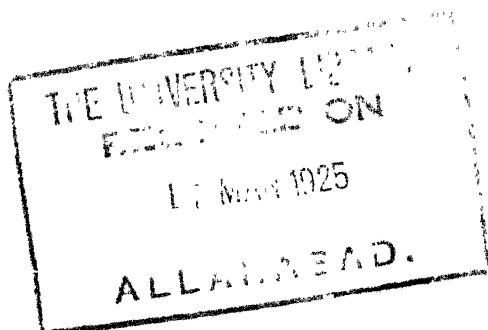
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